PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
ARP2559

AUDIO/VIDEO STEREO RECEIVER

VSX-521S HEZ

● Refer to the service manual ARP2558 for VSX – 501.

● This manual is applicable to VSX – 521S/HEZ.
● Ce manuel pour le service comprend les explications de réglage en français.
● Este manual de servicio trata del método ajuste escrito en español.

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

VSX – 521S/HEZ and VSX – 501/KU have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		VSX – 501/KU	VSX – 521S/HEZ	
◉	TUNER assembly	AWE1140	AWE1184	
◉	AMP assembly	AWZ4254	AWZ4533	
◉	POWER SUPPLY assembly	AWZ4255	AWZ4534	
◉	REAR SP CENTER SP assembly	AWZ4256	AWZ4537	
NSP	FRONT SP assembly	AWZ4257	AWZ4536	
◉	SP SW assembly	AWZ4262	AWZ4535	
◉	AUDIO FUNCTION assembly	AWZ4263	AWZ4541	
◉	A/V FUNCTION assembly	AWZ4264	AWZ4542	
◉	VOLUME assembly	AWZ4269	AWZ4544	
⚠	T1 Power transformer (AC120V)	ATS1424	....	
⚠	T1 Power transformer (AC220 – 230V, 240V)	....	ATS1435	
⚠	C10 – C12 Mylar film capacitor	....	CQMA104K250	(See pages 24, 25)
⚠	FU1 Fuse (8A/125V)	AEK1002	....	
⚠	FU1 Fuse (T2.5A/250V)	....	AEK – 512	
⚠	FU3, FU4 Fuse (4A/125V)	AEK – 125	....	
⚠	FU3, FU4 Fuse (T2.5A/250V)	....	AEK – 512	
⚠	FU5, FU6 Fuse (1.25A/125V)	AEK – 120	....	
⚠	FU5, FU6 Fuse (T1.25A/250V)	....	AEK – 509	
⚠	AC Power cord	ADG1058	ADG1049	
	Display panel	AAK2324	AAK2335	
	Screw (Ground)	....	ABA1047	(REAR SP terminal ↔ Rear panel)
	Strain relief	AEP – 113	AEC – 882	
	Front panel	AMB1987	AMB2012	
NSP	Rear panel	ANC1893	ANC1927	
	Bonnet	ANE1374	ANE1373	
NSP	Heat sink	ANH1398	ANH1399	
NSP	Tuner case	....	ANK1217	
	Packing case	AHD2285	AHD2356	
	Operating instructions (English)	ARB1378	....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguese)	....	ARC1367	
	Operating instructions (English, French, German, Italian)	....	ARE1244	

Mark	Symbol & Description	Part No.		Remarks
		VSX−501/KU	VSX−521S/HEZ	
	FM antenna	ADH1004	....	
	FM antenna assembly	....	ADH1002	
	Remote control unit (CU−VSX046)	AXD1263	....	
	Remote control unit (CU−VSX051)	....	AXD1282	
	Battery cover	PZN1001	....	
	Battery (R03, AAA)	AEX−021	....	
	Battery (LR6, AA)	....	AEX1007	

AMP ASSEMBLY

AMP assembly (AWZ4533) and AMP assembly (AWZ4254) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4254	AWZ4533	
	Q2925	....	2SA1145	
	D56, D59	HSS104−02	....	
	D2925, D2926	....	HSS104−02	
	D2927, D2928	....	RD4.3ESB	
	L102−L104	ATH1004	ATH1009	
	C109, C110	CCCSL220K500	CCCSL470K500	
	C121, C122, C210	CFTXA473J50	CFTXA104J50	
	C125, C126	CKCYB222K50	CKCYB472K50	
	C207	CCCSL560K500	CCCSL121K500	
	C209	CEAS470M25	....	
	C2927, C2928	....	CKCYF103Z50	
	C2917−C2919	....	CFTXA104J50	
	C2914	....	CCCSL121K500	
	C2915, C2916	....	CCCSL470K500	
	C2920 (0.01/AC250V)	....	ACG1005	
	C2921−C2924	....	CQMXA473J100	
	C2925, C2926	....	CEAS0R1M100	
	R129−R136, R214−R217	RD1/4PMF101J	RD1/4PMFL101J	
	R147, R148, R220	RD1/4PMF100J	RD1/4PMF101J	
	R209, R211	RD1/8PM472J	....	
	R210	RD1/4PMF470J	RD1/4PMFL470J	
	R2921, R2923, R2924	....	RS1LMF100J	
	R2925	....	RD1/4PMF680J	
	R2926	....	RD1/8PM224J	

REAR SP CENTER SP ASSEMBLY

REAR SP CENTER SP assembly (AWZ4537) and REAR SP CENTER SP assembly (AWZ4256) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4256	AWZ4537	
	RY251	ASR1035	ASR−111	
	L251	ATH1004	ATH1009	
	L2907, L2909	....	ATH−133	
	C253	CFTXA473J50	CFTXA104J50	
	C2907, C2909	....	CKCYF103Z50	
	C2908, C2910	....	CKDYF473Z50	
	C2911	....	CFTXA104J50	
	C2930	....	CKDYB103K500	
	R2907, R2909	....	RD1/2PMF101J	

POWER SUPPLY ASSEMBLY

POWER SUPPLY assembly (AWZ4534) and POWER SUPPLY assembly (AWZ4255) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4255	AWZ4534	
	L51	....	ATF−151	
	C2929	....	CKCYB102K50	
	R71	RD1/8PM102J	....	
⚠	R82 (2.2M, 1/2W)	ACN−208	....	
	R2922	....	RS1LMF100J	
	Mini jack	AKN1020	....	
⚠	AC outlet (3P)	AKP1053	....	

SP SW ASSEMBLY

SP SW assembly (AWZ4535) and SP SW assembly (AWZ4262) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4262	AWZ4535	
	C2912, C2913	....	CKCYB392K50	
	R2912, R2913	....	RS1LMF681J	

FRONT SP ASSEMBLY

FRONT SP assembly (AWZ4536) and FRONT SP assembly (AWZ4257) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4257	AWZ4536	
	L2901 – L2904	....	ATH – 133	
	C2901 – C2904	....	CKCYF103Z50	
	C2905, C2906	....	CKCYB681K50	
	R2901 – L2904	....	RD1/2PMF101J	

AUDIO FUNCTION ASSEMBLY

AUDIO FUNCTION assembly (AWZ4541) and AUDIO FUNCTION assembly (AWZ4263) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4263	AWZ4541	
	C807, C808	CCSQSL101J50	CCSQCH821J50	
	C809, C810	CEAS470M16	CEAS471M6	
	C811, C812	CQMA822J50	CQMA243J50	
	C813, C814	CQMA242J50	CQMA823J50	
	C2951, C2952	....	CCSQCH681J50	
	C2955, C2956, C2959, C2960, C2965, C2966	....	CCSQCH391J50	
	C2957, C2958, C2961 – C2964, C2967 – C2970	....	CCSQSL101J50	
	R807, R808	RS1/10S681J	RS1/10S680J	
	R809, R810	RS1/10S394J	RS1/10S302J	
	R811, R812	RS1/10S303J	RS1/10S393J	

A/V FUNCTION ASSEMBLY

A/V FUNCTION assembly (AWZ4542) and A/V FUNCTION assembly (AWZ4264) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4264	AWZ4542	
	C2971, C2972, C2975, C2976, C2979, C2980, C2985, C2986	....	CCSQCH391J50	
	C2973, C2974, C2977, C2978, C2981 – C2984, C2987 – C2990	....	CCSQSL101J50	

VOLUME ASSEMBLY

VOLUME assembly (AWZ4544) and VOLUME assembly (AWZ4269) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4269	AWZ4544	
	C2991 – C2994	....	CCSQCH151J50	
	C2995	....	CKDYB561K50	
	R2941, R2942, R2945, R2947	....	RD1/8PM102J	
	R2943, R2944, R2946, R2948	....	RS1/10S222J	

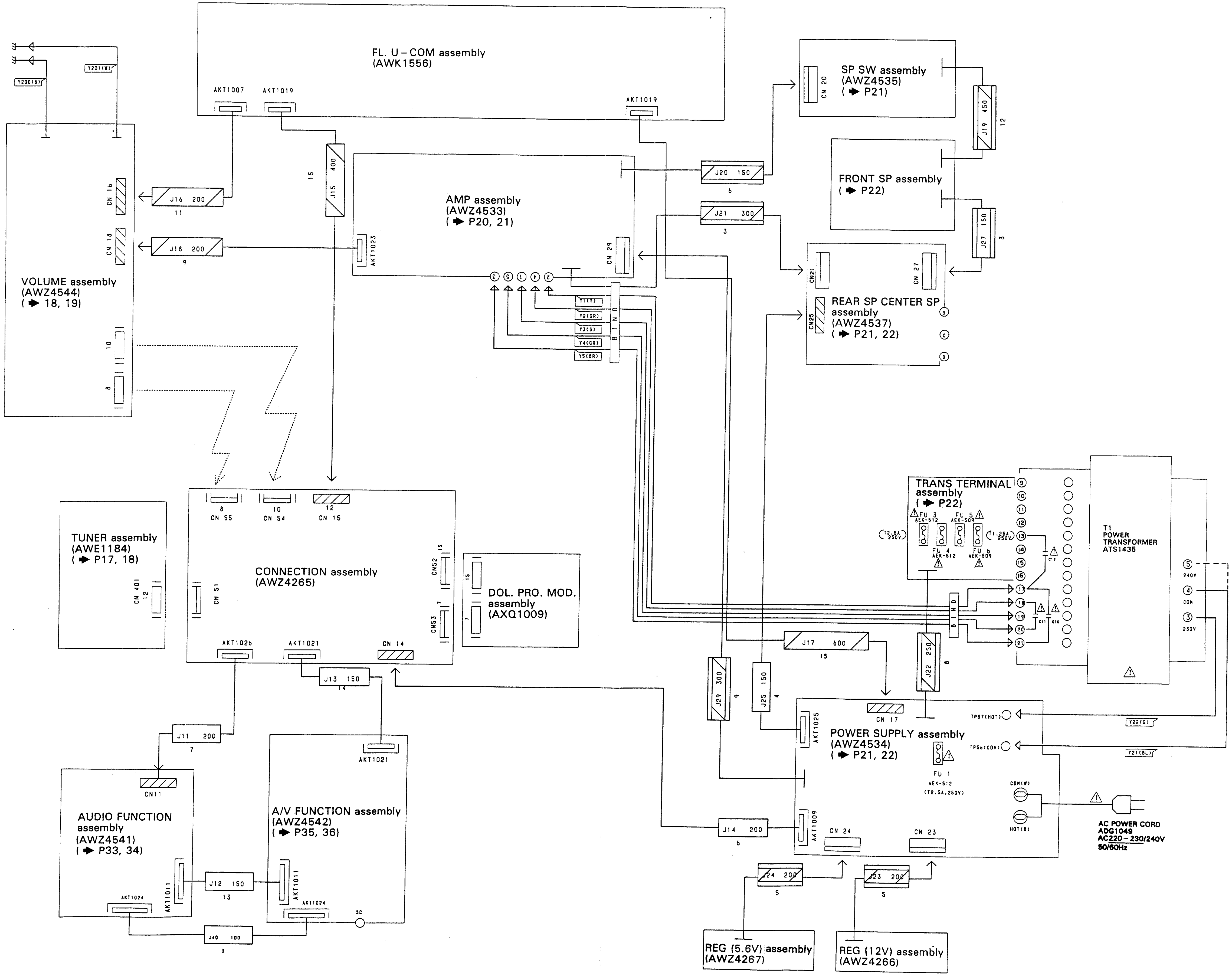
TUNER ASSEMBLY

TUNER assembly (AWE1184) and TUNER assembly (AWE1140) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWE1140	AWE1184	
	Q401	2SK241	....	
	Q402	2SC2786	....	
	Q403	2SC2668	....	
	Q405	2SK161	....	
	Q441	....	2SC1740S	
	D401 – D403	1SV147	....	
	F441	....	ATF – 146	
	T402	ATE – 063	....	
	L401	ATC1001	....	
	L402	ATC1002	....	
	L403	ATC1004	....	
	L404	ATC1005	....	
	L405	ATC1003	....	
	L406, L407	LAU2R2M	....	
	L432	....	LAU2R2M	
	C400	CKDYF102Z50	....	
	C401, C404, C405	CCDRH330J50	....	
	C402	CCDRH390J50	....	
	C403, C410 – C412, C418	CKPUYY103N16	....	
	C406	CCDCH020C50	....	
	C409	CKPUYB101K50	....	
	C413	CCDCH150J50	....	
	C414	CCDCH330J50	....	
	C415	CCDCH080D50	....	
	C416	CCDTH180J50	....	

2. SCHEMATIC DIAGRAMS AND PCB PATTERNS

2.1 OVERALL SCHEMATIC DIAGRAM


FL. U-COM assembly
(AWK1556)
AKT1007
AKT1019
AKT1019
Y200(B)
Y201(W)
VOLUME assembly
(AWZ4544)
(➧ 18, 19)
CN 16
CN 18
J16 200
11
J18 200
9
J15 400
15
AMP assembly
(AWZ4533)
(➧ P20, 21)
AKT1023
CN 29
Y1(Y)
Y2(GR)
Y3(B)
Y4(GR)
Y5(BR)
BIND
J20 150
6
J21 300
3
SP SW assembly
(AWZ4535)
(➧ P21)
CN 20
J19 450
12
FRONT SP assembly
(➧ P22)
J27 150
3
CN21
CN 27
CN25
REAR SP CENTER SP
assembly
(AWZ4537)
(➧ P21, 22)
TUNER assembly
(AWE1184)
(➧ P17, 18)
CN 401
12
CONNECTION assembly
(AWZ4265)
8
CN 55
10
CN 54
12
CN 15
CN 51
CN52
15
CN53
7
AKT1026
AKT1021
CN 14
J13 150
14
DOL. PRO. MOD.
assembly
(AXQ1009)
J11 200
7
AUDIO FUNCTION
assembly
(AWZ4541)
(➧ P33, 34)
CN11
AKT1011
AKT1024
J12 150
13
J40 100
3
A/V FUNCTION assembly
(AWZ4542)
(➧ P35, 36)
AKT1021
AKT1011
AKT1024
TRANS TERMINAL
assembly
(➧ P22)
FU 3
AEK-512
FU 5
AEK-509
FU 4
AEK-512
FU 6
AEK-509
(T2.5A 250V)
(T1.25A 250V)
BIND
J17 600
15
J22 250
8
J29 300
9
J25 150
4
T1
POWER
TRANSFORMER
ATS1435
240V
COM
230V
POWER SUPPLY assembly
(AWZ4534)
(➧ P21, 22)
CN 17
AKT1025
AKT1009
TP57(HOT)
TP56(COM)
FU 1
AEK-512
(T2.5A,250V)
COM(W)
HOT(B)
Y22(G)
Y21(BL)
CN 24
CN 23
J14 200
6
J24 200
5
J23 200
5
AC POWER CORD
ADG1049
AC220-230/240V
50/60Hz
REG (5.6V) assembly
(AWZ4267)
REG (12V) assembly
(AWZ4266)

Mark	Symbol & Description	Part No.		Remarks
		AWE1140	AWE1184	
	C417	CCDCH010C50	....	
	C419	CKPUYY103N16	CKDYF103Z50	
	C423	....	CEANP2R2M50	
	C424	....	CKCYB681K50	
	C446, C447	CQMA561K50	....	
	C452	CEANP4R7M35	CEAS100M50	
	C466	CCCSL121J50	CCCSL221J50	
	C472	CKPUYF223Z25	CKDYF473Z50	
	C479	CCPUSL220J50	....	
	R401, R404	RD1/8PM473J	....	
	R402	RD1/8PM470J	....	
	R403, R407, R411	RD1/8PM221J	....	
	R405	RD1/8PM824J	....	
	R406	RD1/8PM101J	....	
	R408	RD1/8PM512J	....	
	R409	RD1/8PM682J	....	
	R410	RD1/8PM123J	....	
	R430, R443	....	RD1/8PM472J	
	R445	....	RD1/8PM222J	
	R447	....	RD1/8PM105J	
	R454	RD1/8PM433J	RD1/8PM473J	
	R459, R460	RD1/8PM822J	RD1/8PM392J	
	R464, R465	RD1/8PM123J	RD1/8PM183J	
	R466	RD1/8PM753J	RD1/8PM623J	
	R471	RD1/8PM102J	RD1/8PM472J	
	X431	ATF-125	ATF1027	
	2P antenna terminal with PAL	....	AKA1011	
	4P antenna terminal	AKA1014	....	
◉	FE assembly	....	AWB1004	

PCB PARTS LIST

FE assembly (AWB1004) is a part of TUNER assembly (AWE1184).

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56×10^1 → 561 .... RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ J
47kΩ → 47×10^3 → 473 .... RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ J
0.5Ω → 0R5 .... RN2H $\boxed{0}\boxed{R}\boxed{5}$ K
1Ω → 010 .... RS1P $\boxed{0}\boxed{1}\boxed{0}$ K

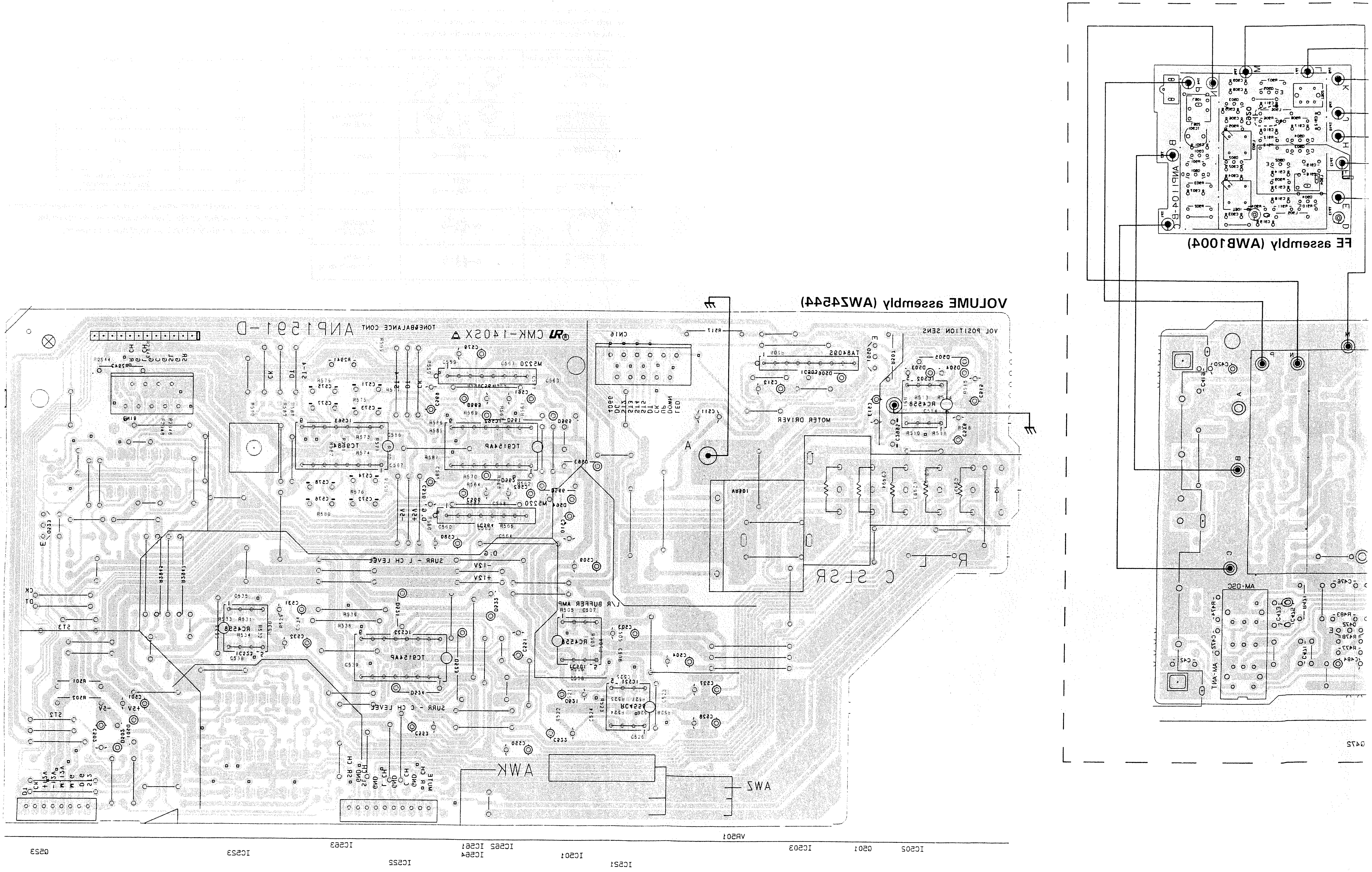
Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562×10^1 → 5621 .... RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

FE ASSEMBLY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	Q901	MOS-FET	2SK241
	Q902	TRANSISTOR	2SC2668
	Q903, Q904	MOS-FET	2SK241
	Q905	TRANSISTOR	2SC2786
	D901-904	VARI-CAP DIODE	1SV147-4
COILS & TRANSFORMER			
	L901	COIL	ATC1001
	L902	COIL	ATC1010
	L903	COIL	ATC-247
	L904	COIL	ATC1003
	L905, 906	AXIAL INDUCTOR	LAU2R2M
	T901	COIL	ATC-194
	T902	IF TRANSFORMER	ATE-063
CAPACITORS			
	TC901	CERAMIC TRIMMER	ACM-014
	C901	CERAMIC CAPACITOR	CCDRH100D50
	C902	CERAMIC CAPACITOR	CCDRH390J50
	C903	CERAMIC CAPACITOR	CKDYF103Z50
	C904	CERAMIC CAPACITOR	CCDRH390J50
	C905	CERAMIC CAPACITOR	CCDRH330J50
	C906	CERAMIC CAPACITOR	CCDRH390J50
	C907	CERAMIC CAPACITOR	CKDYF223Z50
	C908	CERAMIC CAPACITOR	CCDCH010C50
	C909, 910	CERAMIC CAPACITOR	CCDCH020C50
	C911	CERAMIC CAPACITOR	CCDSL101J50
	C912	CERAMIC CAPACITOR	CKDYF103Z50
	C913	CERAMIC CAPACITOR	CCDCH150J50
	C914	CERAMIC CAPACITOR	CCDCH330J50
	C915	CERAMIC CAPACITOR	CCDCH080D50
	C916	CERAMIC CAPACITOR	CCDTH180J50
	C917	CERAMIC CAPACITOR	CCDCH050C50
	C918, 919	CERAMIC CAPACITOR	CKDYF103Z50
	C920	CERAMIC CAPACITOR	CKDYF102Z50
RESISTORS			
		All resistors	RD1/8PM□□□J

2.2 TUNER ASSEMBLY AND VOLUME ASSEMBLY


VOLUME assembly (AWZ4544)
FE assembly (AWB1004)
ANP1591-D
ANP1104-B
CMK-1405X
TONE/BALANCE CONT
VOL POSITION SENS
MOTER DRIVER
L/R BUFFER AMP
SURR - L CH LEVEL
SURR - C CH LEVEL
C SLSR
R L
AWK
AWZ
VR501
IC501
IC502
IC503
IC521
IC522
IC523
IC561
IC562
IC563
IC564
Q501
Q523
TC9154AP
RC4558
TA8409S
MS220
OSC-MA
A
B

erwise noted.

d output.
put signal unless otherwise noted.
oltage at rated power.
1kHz, 100% MOD.
at no input signal unless otherwise

component parts indicates the im-
or of the parts. Therefore, when re-
ts of identical designation.

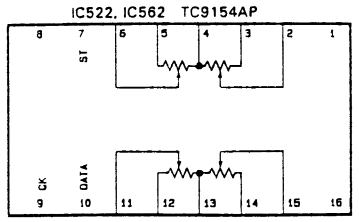
8. **SWITCHES** (Underline indicates switch position):

FL. U – COM assembly

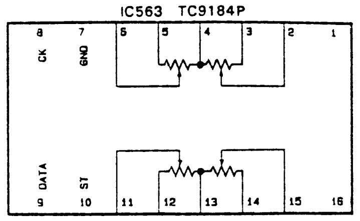
S601	SIMULATED STEREO
S603	POWER
S604	ASC MEMORY
S605	THEATER/SIMULATED SURR.
S606	VIDEO SELECTOR
S607	BAND
S608	ASC 1
S609	PROLOGIC THEATER/STUDIO
S611	TUNING DOWN
S612	ASC 2
S613	EFECT DOWN
S614	VCR 1
S615	TUNING UP
S616	MEMORY
S617	BASS DOWN
S618	VCR 2
S619	1
S620	CUSTOM SELECT
S621	TREBLE DOWN
S622	LD
S623	2
S624	SCAN
S625	PROLOGIC
S626	TV
S627	3
S628	AUTO MONO
S629	BALLANCE LCH
S631	4
S632	AUTO MANUAL
S633	EFECT UP
S634	TAPE 1/DAT
S635	5
S636	DIRECT ACCESS
S637	BASS UP
S638	TAPE 2/MONITOR
S639	6
S640	HITS
S641	3CH LOGIC
S642	CD
S643	7
S645	TREBLE UP
S646	TUNER
S647	8
S649	BALLANCE RCH
S650	PHONO
S651	9
S653	RETURN
S654	ACOUSTIC SELECT
S655	0
S657	MUTING
S658	ACOUSTIC MEMORY
S659	RESET

SP SW assembly

S251	SP – A ON/OFF SP – B ON/OFF

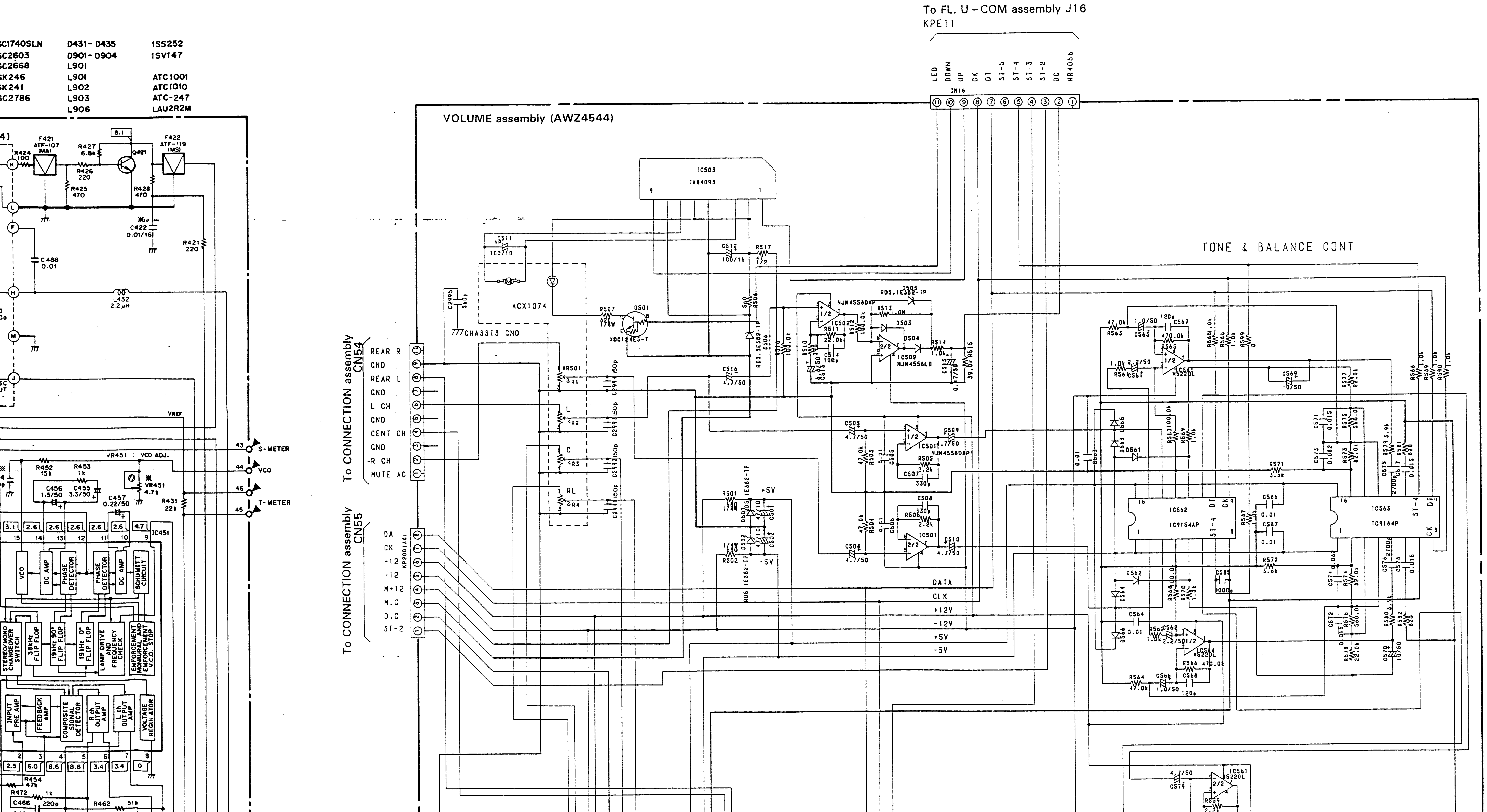


IC522, IC562 TC9154AP
8
7
6
5
4
3
2
1
ST
CK
DATA
9
10
11
12
13
14
15
16

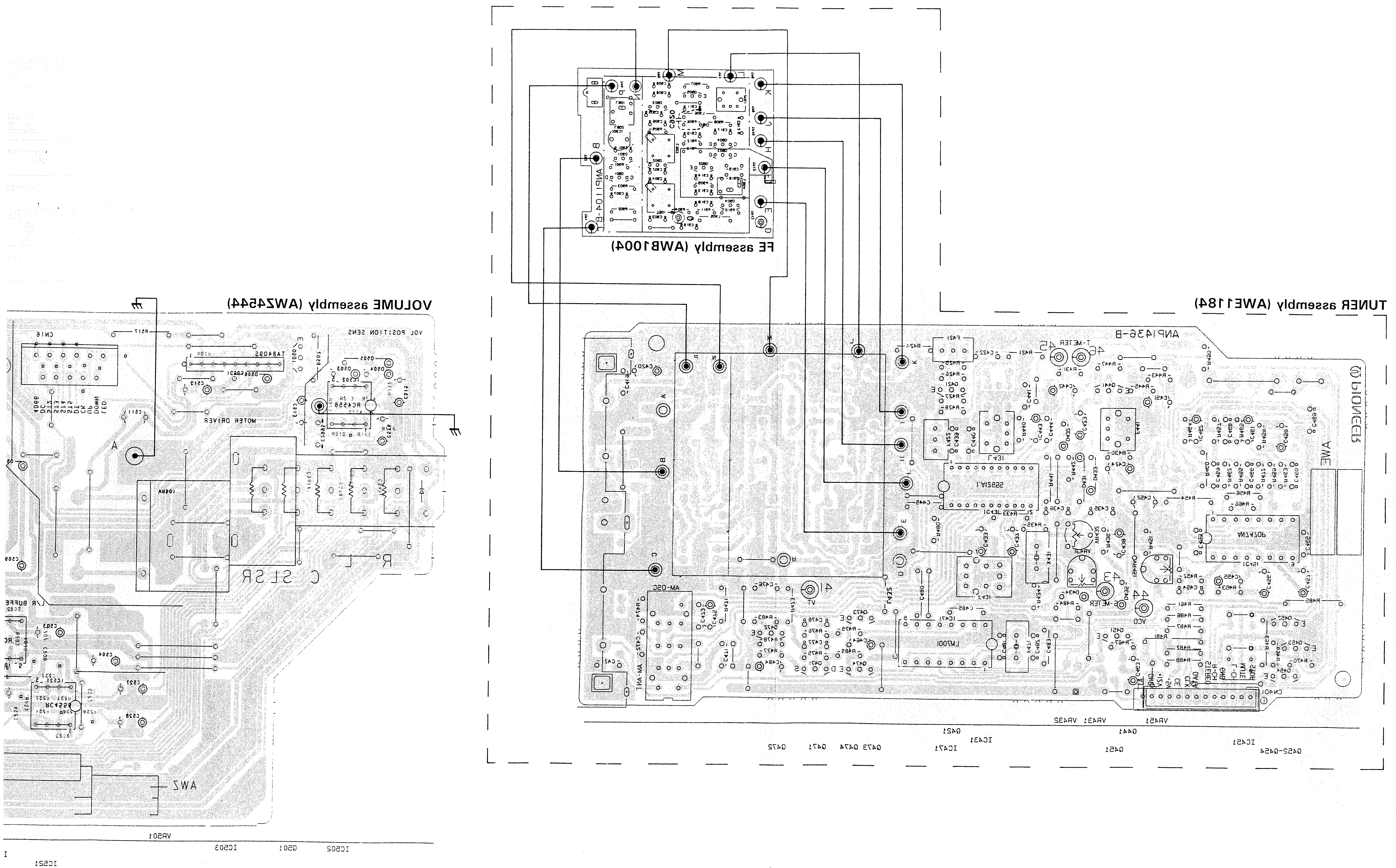


IC563 TC9184P
8
7
6
5
4
3
2
1
CK
GND
DATA
ST
9
10
11
12
13
14
15
16

SC1740SLN	D431 - D435	1SS252
SC2603	D901 - D904	1SV147
SC2668	L901	
SK246	L901	ATC1001
SK241	L902	ATC1010
SC2786	L903	ATC-247
	L906	LAU2R2M



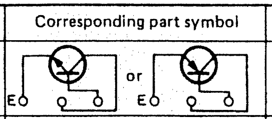
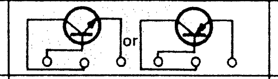
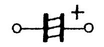
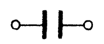
To FL. U – COM assembly J16
KPE11
LED
DOWN
UP
CK
DT
ST-5
ST-4
ST-3
ST-2
DC
HR4066
CN16
VOLUME assembly (AWZ4544)
TONE & BALANCE CONT
IC503
TA8409S
IC501
IC502
NJM4558DXP
NJM4558D
IC561
IC562
TC9154AP
IC563
TC9184P
IC564
NJM4558D
IC565
NJM4558DXP
NJM2220L
Q501
XDC124ES-T
ACX1074
CHASSIS GND
VR501
R1
L
R2
C
R3
RL
R4
To CONNECTION assembly CN54
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
-R CH
MUTE AC
To CONNECTION assembly CN55
KP200IA8L
DA
CK
+12
-12
M+12
N.C
D.G
ST-2
DATA
CLK
+12V
-12V
+5V
-5V
F421
ATF-107
(MA)
F422
ATF-119
(MS)
R424
100
R427
6.8k
R426
220
R425
470
R428
470
Q421
8.1
C422
0.01/16
R421
220
C488
0.01
L432
2.2μH
VR451 : VCO ADJ.
R452
15k
R453
1k
C456
1.5/50
C455
3.3/50
C457
0.22/50
VR451
4.7k
R431
22k
43
S-METER
44
VCO
46
45
T-METER
VREF
IC451
3.1
2.6
2.6
2.6
2.6
2.6
4.7
VCO
DC AMP
PHASE DETECTOR
PHASE DETECTOR
DC AMP
SCHMITT CIRCUIT
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
2.5
6.0
8.6
8.6
3.4
3.4
0
R454
47k
R472
1k
C466
220p
R462
51k


FE assembly (AWB1004)
ANP1104-B
TUNER assembly (AWE1184)
ANP1436-B
PIONEER
AWE
LA1832S
LM7001
VOLUME assembly (AWZ4544)
MOTER DRIVER
VOL POSITION SENS
TA8409S
AWZ
VR501

This PCB connection diagram is viwed from the foil side.

NOTE

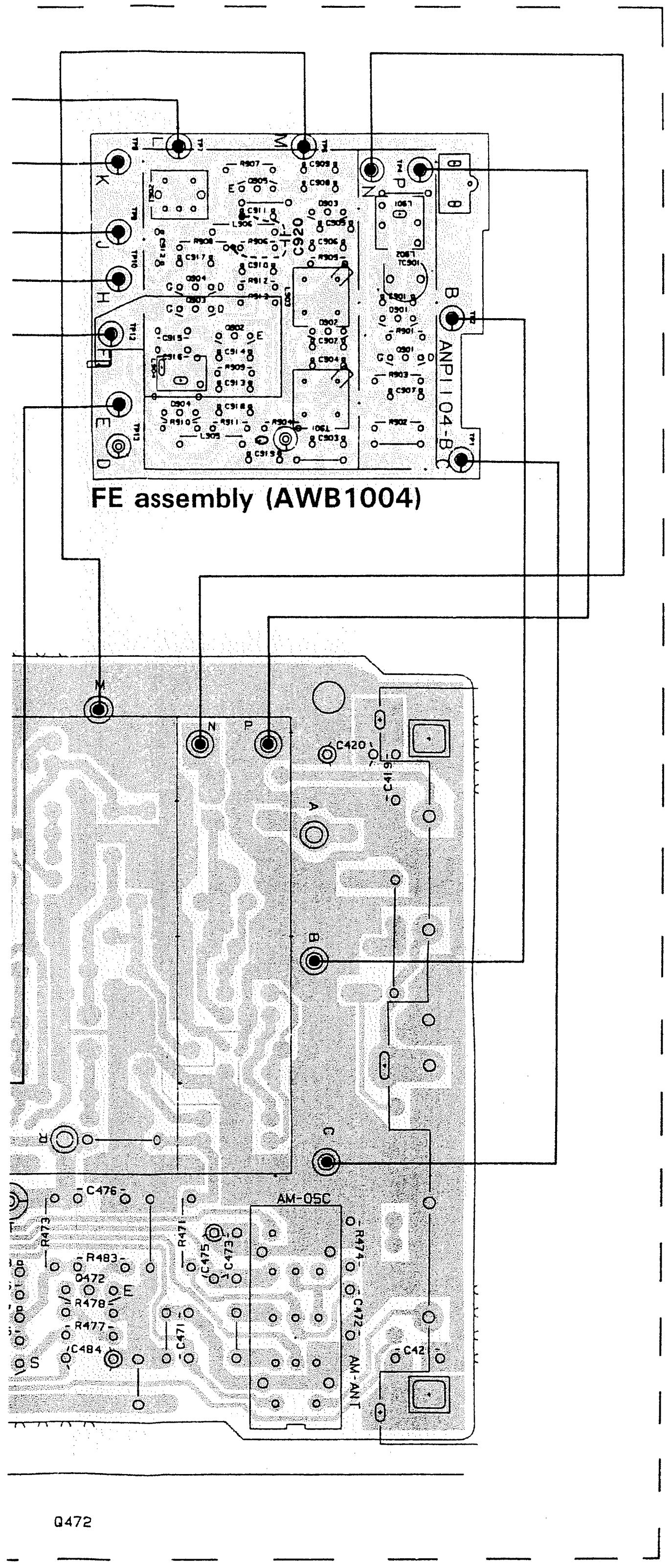
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	 or	Transistor
Q215	 or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513		Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

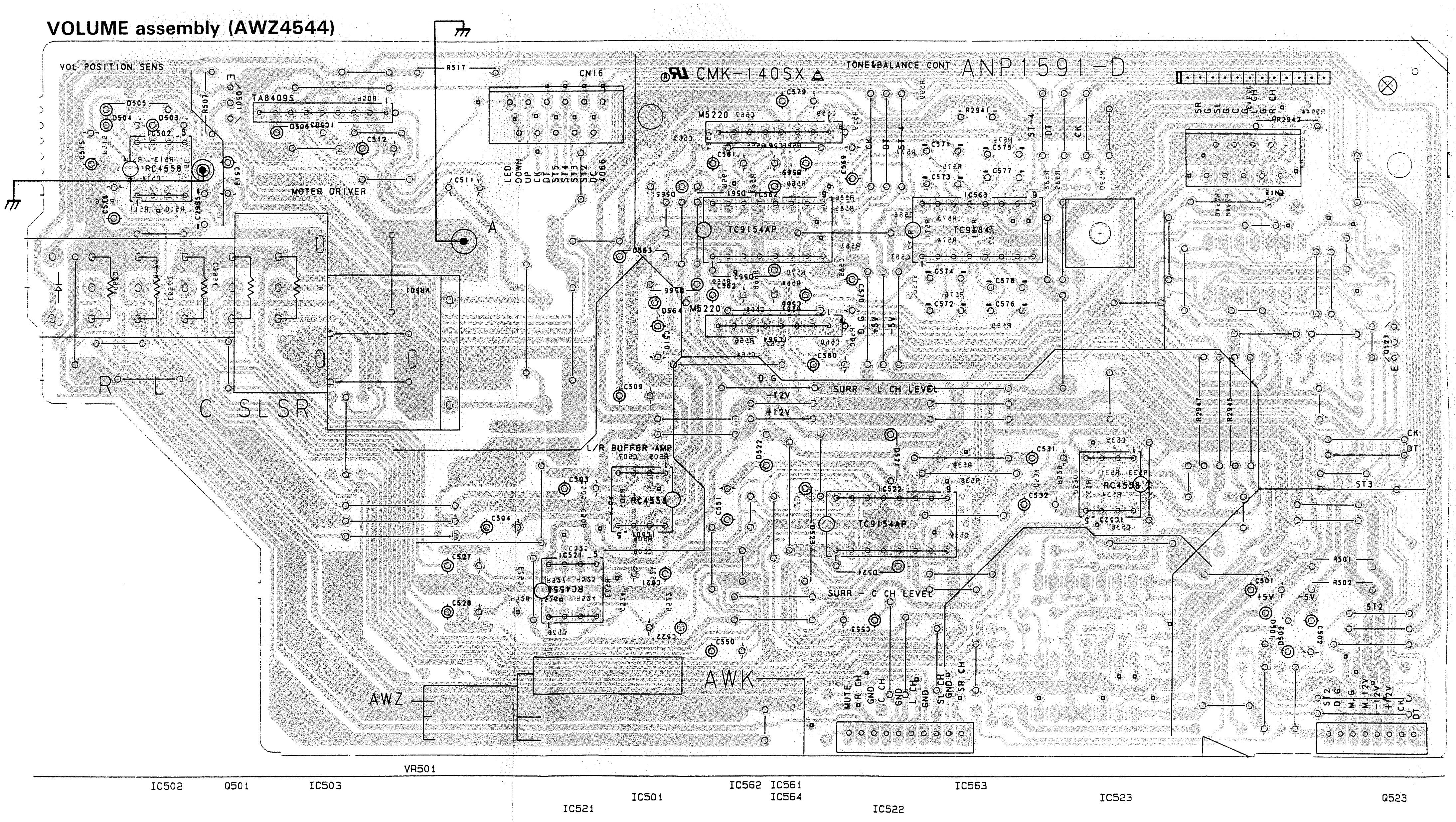
3. The capacitor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.



FE assembly (AWB1004)

ANP1104-B
C920
M
N
P
K
J
H
I
E
D
A
B
C
AM-OSC
AM-ANT
Q472

VOLUME assembly (AWZ4544)



VOL POSITION SENS
TA8409S
MOTER DRIVER
RC4558
CN16
LED DOWN UP CK DT ST5 ST4 ST3 DC 4066
CMK-140SX
TONE&BALANCE CONT
ANP1591-D
M5220
TC9154AP
SURR - L CH LEVEL
L/R BUFFER AMP
SURR - C CH LEVEL
-12V
+12V
+5V
-5V
R
L
C
SL
SR
A
AWZ
AWK
CK
DT
ST3
ST2
VR501
IC502
Q501
IC503
IC521
IC501
IC562
IC561
IC564
IC522
IC563
IC523
Q523

ed side.

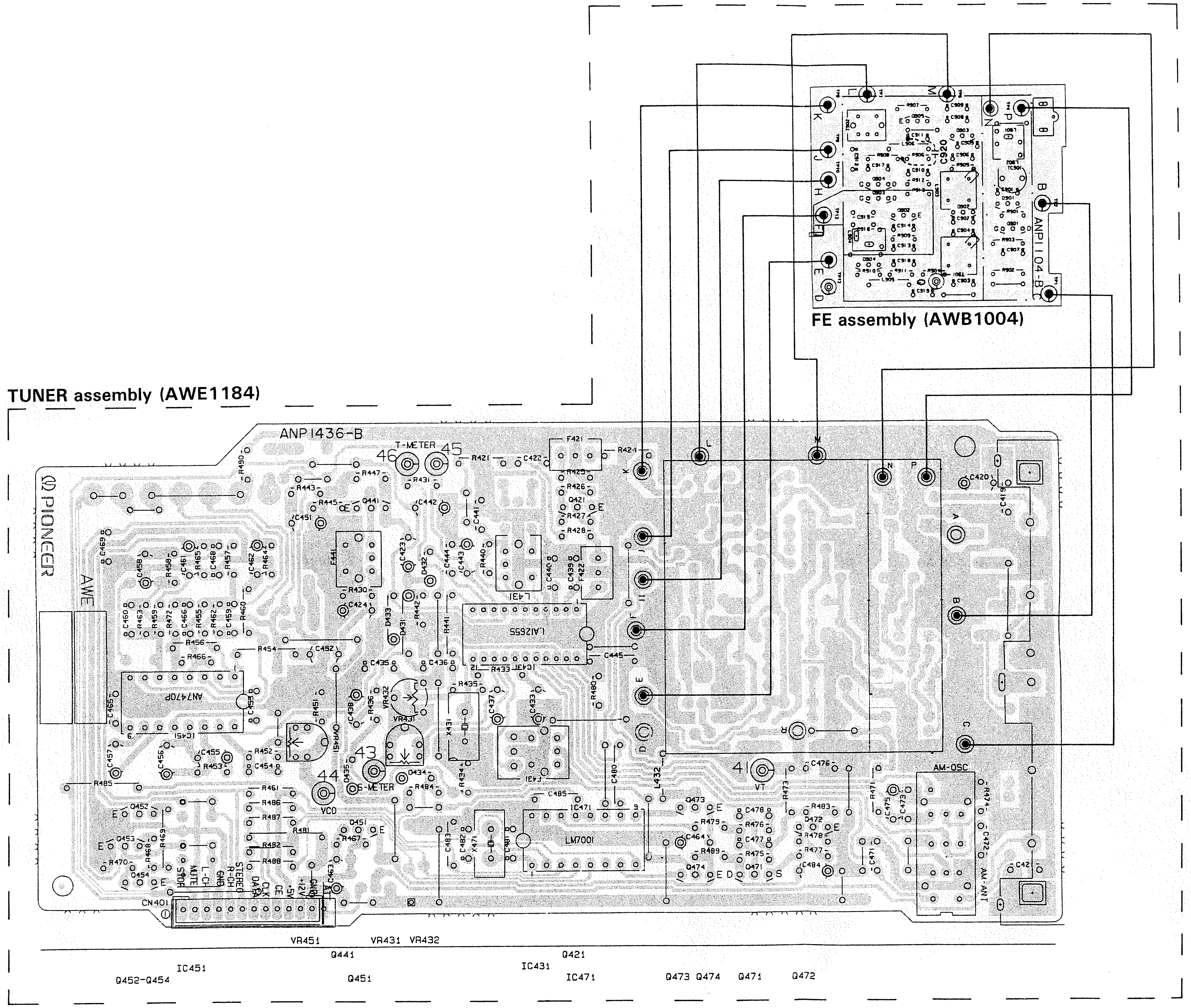
NOTE

1. This P.C.B
2. The parts
with the c

P.C.B. pattern

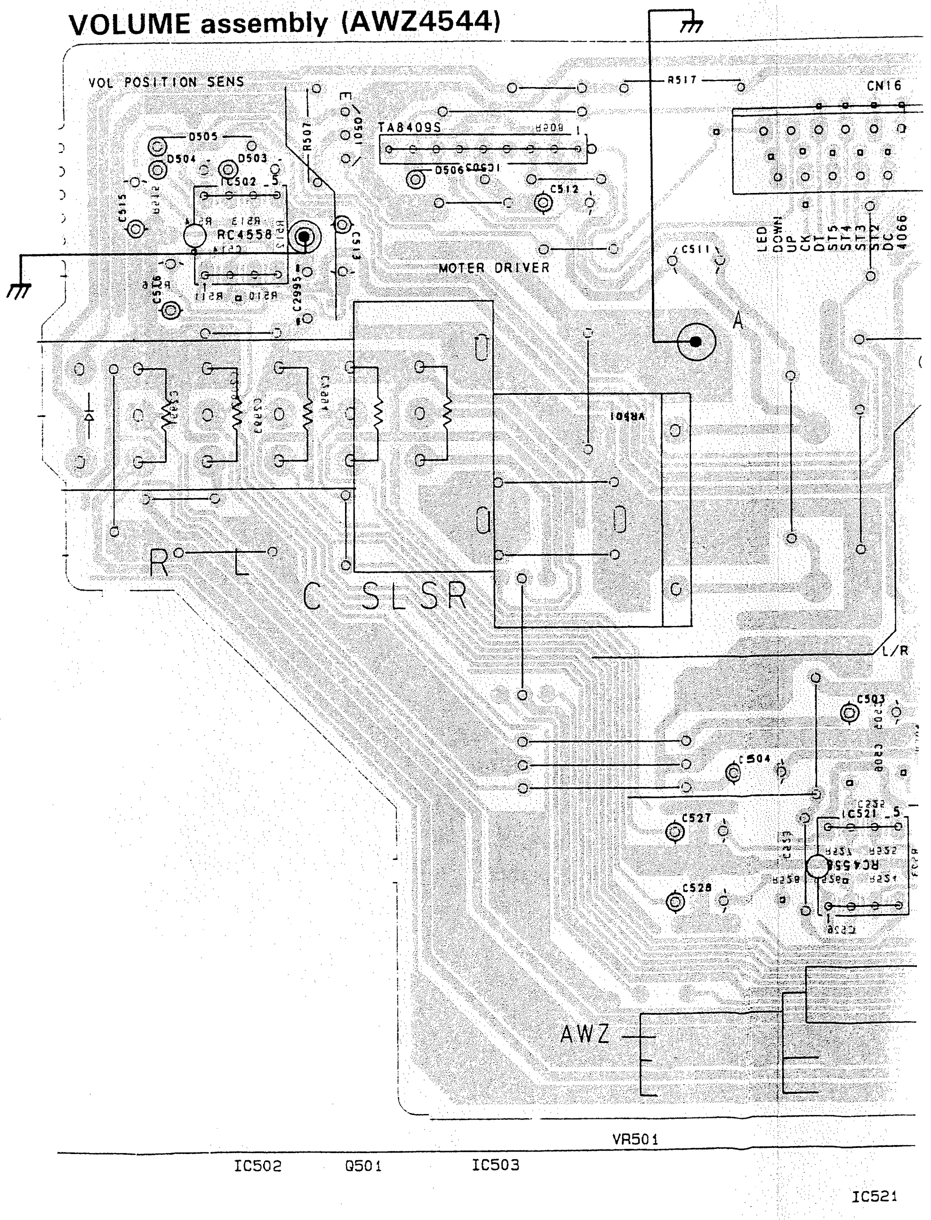
A

B



TUNER assembly (AWE1184)

FE assembly (AWB1004)
ANP1104-B
ANP1436-B
PIONEER
AWE
T-METER
S-METER
VCO
VT
AM-OSC
AM-ANT
LA1265S
AN7470P
LM7001
CN401
IC451
IC431
IC471
Q452-Q454
Q441
Q451
Q421
Q473 Q474 Q471 Q472
VR451 VR431 VR432
46
45
44
43
41
K
J
H
E
D
L
M
N
P
A
B
C
STEREO
R-CH
L-CH
MUTE
GND
CLK
DATA
CE
5V
+12V
GND



VOLUME assembly (AWZ4544)

VOL POSITION SENS
TA8409S
MOTER DRIVER
RC4558
CN16
LED
DOWN
UP
CK
DT
ST4
ST3
DC
4066
R
L
C
SL
SR
AWZ
IC502
Q501
IC503
VR501
IC521

C

D

This PCB connection diagram is viewd from the parts mounted side.

Note: Type 1

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   : DC voltage (V) at no input signal unless otherwise noted. Value in ( ) is DC voltage at rated power.
   mV : Signal voltage at FM 1kHz, 100% MOD.
   ⇦ mA or ⇨ mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ : Adjusting point.
   - ▼ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

FL. U−COM assembly

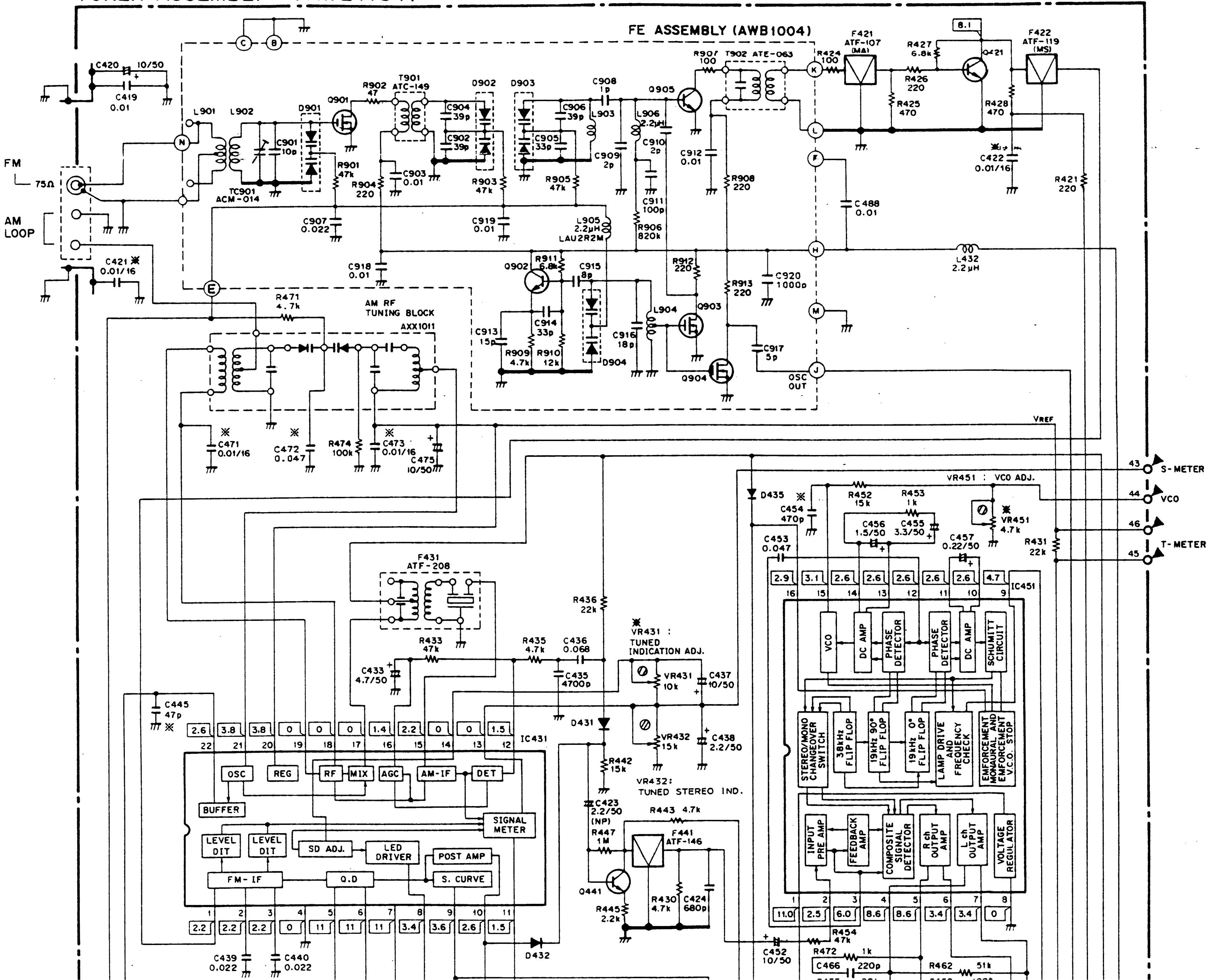
S601	SIMULATED STEREO
S603	POWER
S604	ASC MEMORY
S605	THEATER/SIMULATED SURR.
S606	VIDEO SELECTOR
S607	BAND
S608	ASC 1
S609	PROLOGIC THEATER/STUDIO
S611	TUNING DOWN
S612	ASC 2
S613	EFECT DOWN
S614	VCR 1
S615	TUNING UP
S616	MEMORY
S617	BASS DOWN
S618	VCR 2
S619	1
S620	CUSTOM SELECT
S621	TREBLE DOWN
S622	LD
S623	2
S624	SCAN
S625	PROLOGIC
S626	TV
S627	3
S628	AUTO MONO
S629	BALLANCE LCH
S631	4
S632	AUTO MANUAL
S633	EFECT UP
S634	TAPE 1/DAT
S635	5
S636	DIRECT ACCESS
S637	BASS UP
S638	TAPE 2/MONITOR
S639	6
S640	HITS
S641	3CH LOGIC
S642	CD
S643	7
S645	TREBLE UP
S646	TUNER
S647	8
S649	BALLANCE RCH
S650	PHONO
S651	9
S653	RE
S654	AC
S655	0
S657	MU
S658	AC
S659	RE

SP SW assembl

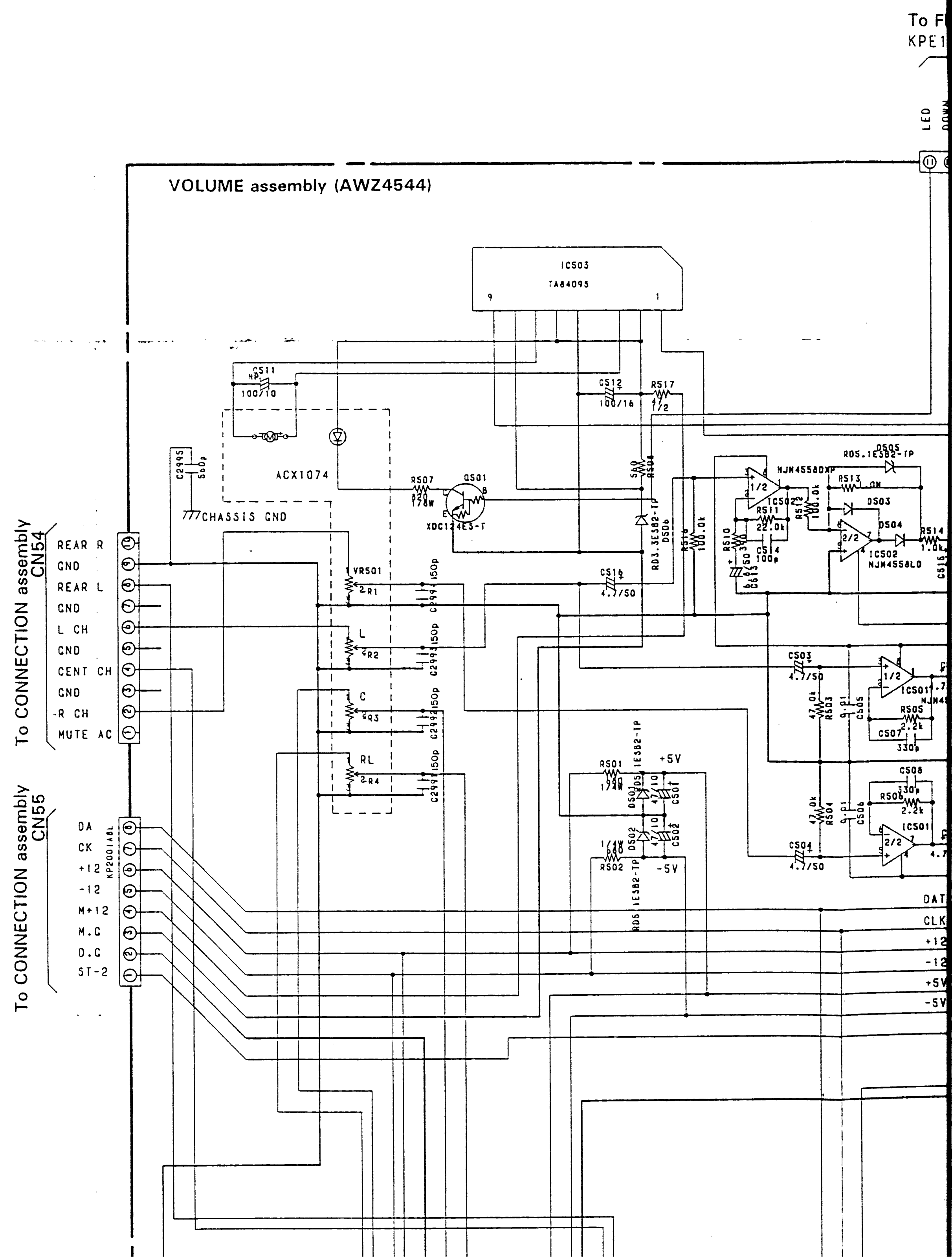
S251	SP SP

IC431	LA1265S	Q472	2SC1740SLN	D431- D435	1SS252
IC451	AN7470P	Q451	2SC2603	D901- D904	1SV147
IC471	LM7001	Q421, Q902	2SC2668	L901	
		Q471	2SK246	L901	ATC1001
Q473, Q474	RN2201	Q901, Q903, Q904	2SK241	L902	ATC1010
Q454	2SA933S	Q905	2SC2786	L903	ATC-247
Q452, Q453, Q441	2SC1740S			L906	LAU2R2M

TUNER ASSEMBLY (AWE1184)


FE ASSEMBLY (AWB1004)
FM
75Ω
AM LOOP
AM RF TUNING BLOCK AXX1011
TC901 ACM-014
T901 ATC-149
T902 ATE-063
F421 ATF-107 (MA)
F422 ATF-119 (MS)
F431 ATF-208
F441 ATF-146
L432 2.2µH
OSC OUT
VREF
S-METER
VCO
T-METER
VR451 : VCO ADJ.
VR431 : TUNED INDICATION ADJ.
VR432 : TUNED STEREO IND.
IC431
IC451
OSC
REG
RF
MIX
AGC
AM-IF
DET
BUFFER
SIGNAL METER
LEVEL DIT
SD ADJ.
LED DRIVER
POST AMP
FM-IF
Q.D
S. CURVE
VCO
DC AMP
PHASE DETECTOR
SCHMITT CIRCUIT
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR

VOLUME assembly (AWZ4544)


To F
KPE1
IC503 TA8409S
ACX1074
CHASSIS GND
XDC124ES-T
NJM4558DX
NJM4558LD
To CONNECTION assembly CN54
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
-R CH
MUTE AC
To CONNECTION assembly CN55
DA
CK
+12
-12
M+12
M.C
D.C
ST-2
DAT
CLK
+12
-12
+5V
-5V
+5V
-5V

erwise noted.

output.
ut signal unless otherwise noted.
ltage at rated power.
kHz, 100% MOD.
at no input signal unless otherwise

component parts indicates the im-
or of the parts. Therefore, when re-
ts of identical designation.

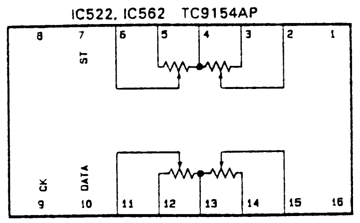
8. SWITCHES (Underline indicates switch position):

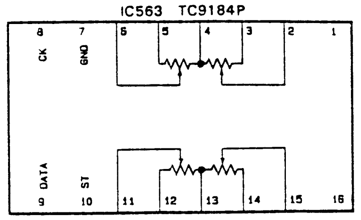
FL. U－COM assembly

S601	SIMULATED STEREO
S603	POWER
S604	ASC MEMORY
S605	THEATER/SIMULATED SURR.
S606	VIDEO SELECTOR
S607	BAND
S608	ASC 1
S609	PROLOGIC THEATER/STUDIO
S611	TUNING DOWN
S612	ASC 2
S613	EFECT DOWN
S614	VCR 1
S615	TUNING UP
S616	MEMORY
S617	BASS DOWN
S618	VCR 2
S619	1
S620	CUSTOM SELECT
S621	TREBLE DOWN
S622	LD
S623	2
S624	SCAN
S625	PROLOGIC
S626	TV
S627	3
S628	AUTO MONO
S629	BALLANCE LCH
S631	4
S632	AUTO MANUAL
S633	EFECT UP
S634	TAPE 1/DAT
S635	5
S636	DIRECT ACCESS
S637	BASS UP
S638	TAPE 2/MONITOR
S639	6
S640	HITS
S641	3CH LOGIC
S642	CD
S643	7
S645	TREBLE UP
S646	TUNER
S647	8
S649	BALLANCE RCH
S650	PHONO
S651	9
S653	RETURN
S654	ACOUSTIC SELECT
S655	0
S657	MUTING
S658	ACOUSTIC MEMORY
S659	RESET

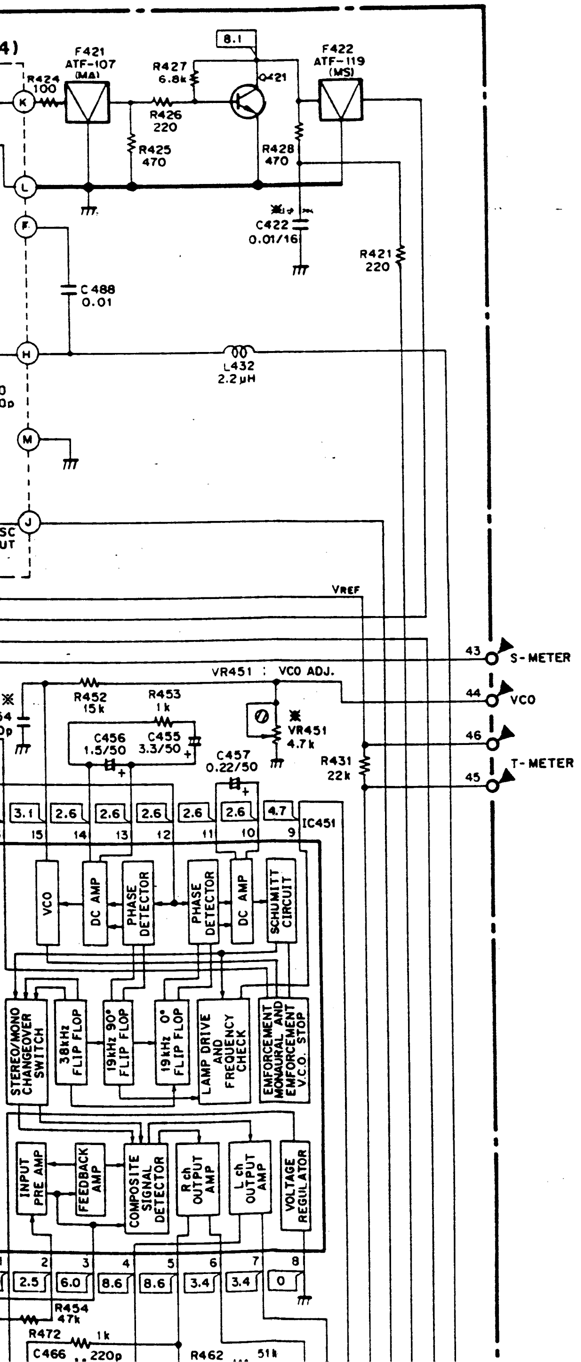
SP SW assembly

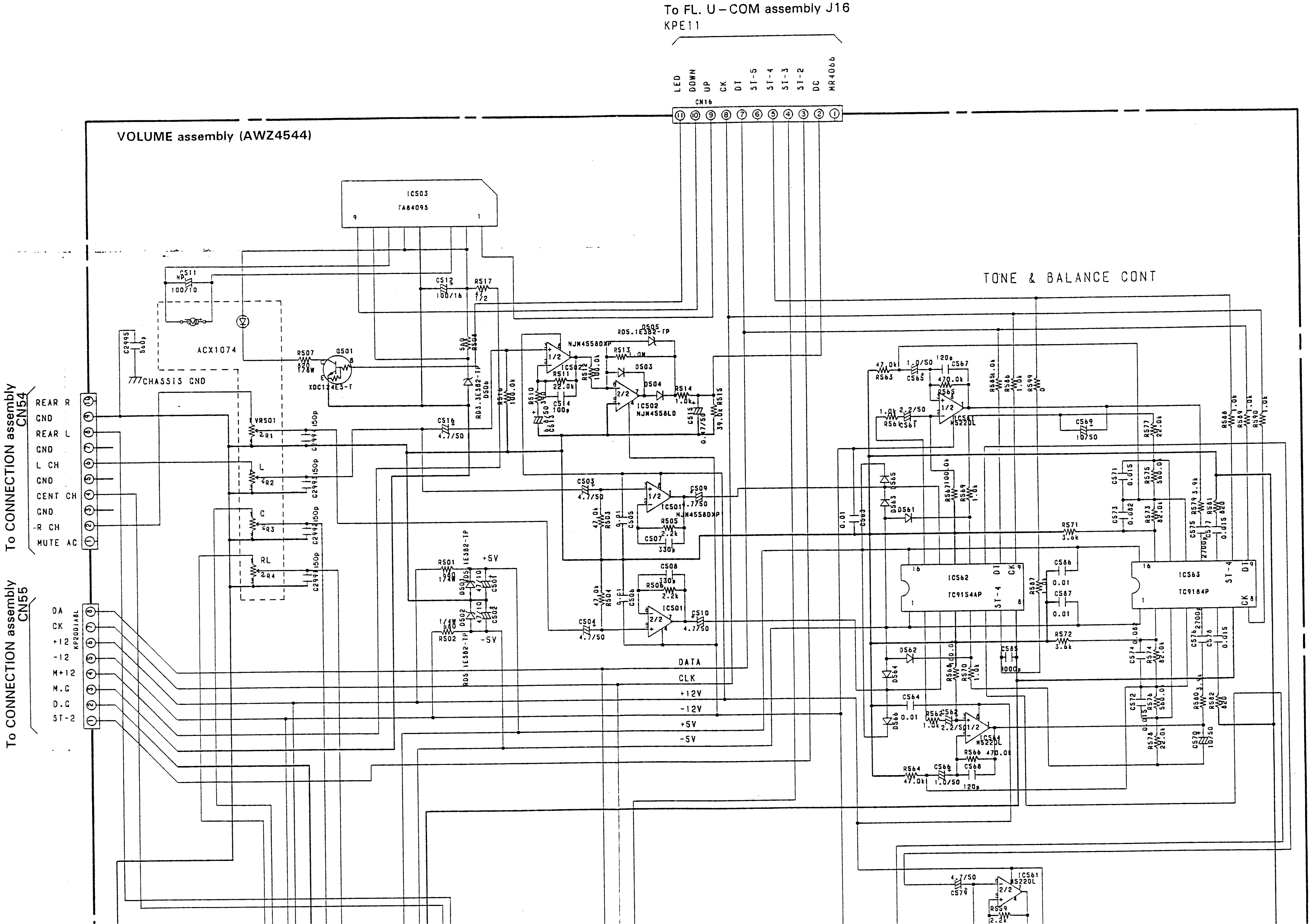
S251	SP－A ON/OFF
	SP－B ON/OFF

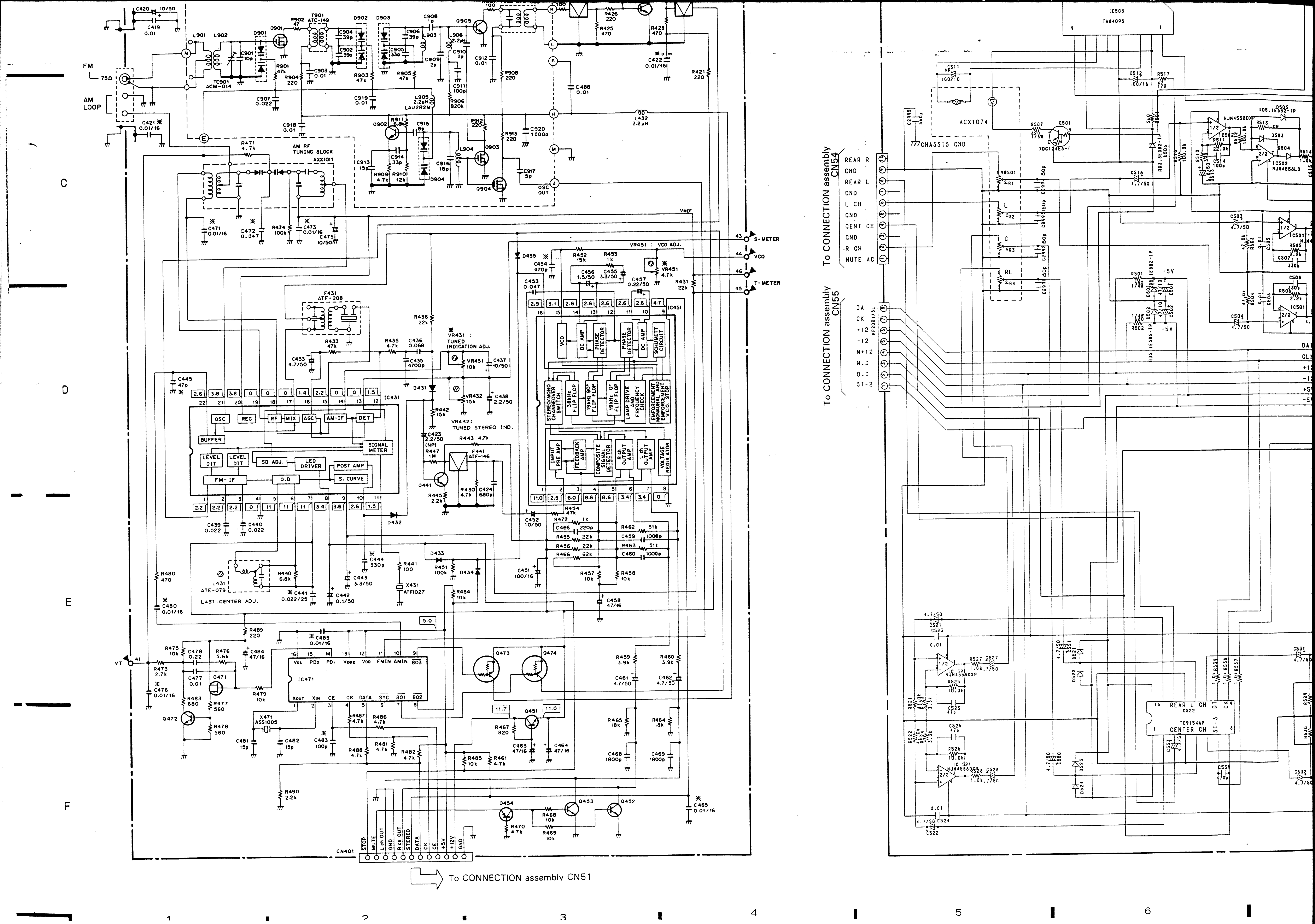

IC522, IC562 TC9154AP
ST
CK
DATA
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16

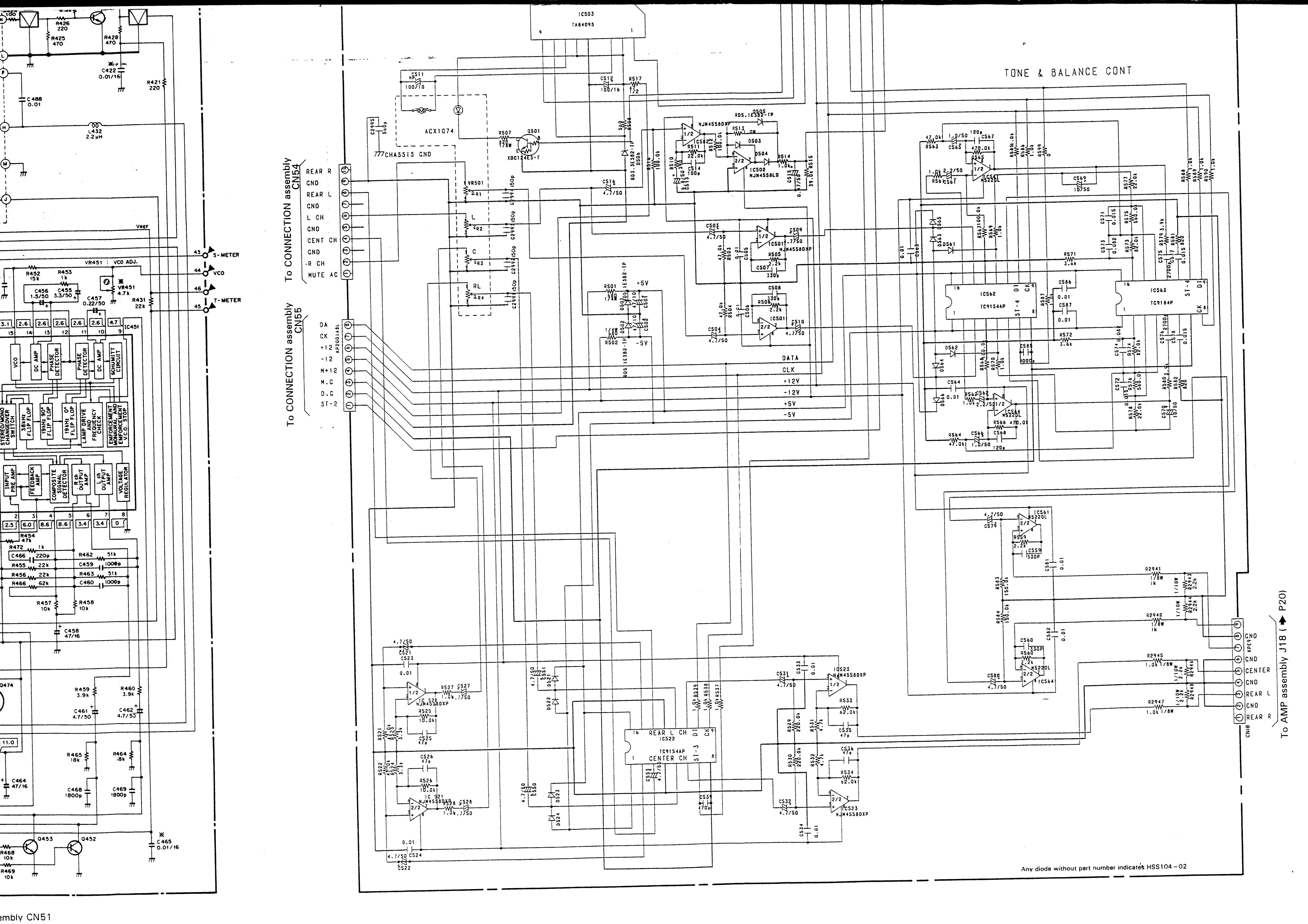

IC563 TC9184P
CK
GND
DATA
ST
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16

C1740SLN D431－D435 1SS252
C2603 D901－D904 1SV147
C2668 L901
K246 L901 ATC1001
K241 L902 ATC1010
C2786 L903 ATC-247
L906 LAU2R2M


F421 ATF-107 (MA)
R424 100
R427 6.8k
R426 220
R425 470
Q421
F422 ATF-119 (MS)
R428 470
C422 0.01/16
R421 220
C488 0.01
L432 2.2μH
VREF
VR451 : VCO ADJ.
R452 15k
R453 1k
C456 1.5/50
C455 3.3/50
C457 0.22/50
VR451 4.7k
R431 22k
IC451
43 S-METER
44 VCO
46
45 T-METER
VCO
DC AMP
PHASE DETECTOR
SCHMITT CIRCUIT
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
R454 47k
R472 1k
C466 220p
R462 51k


To FL. U－COM assembly J16
KPE11
LED DOWN UP CK DT ST-5 ST-4 ST-3 ST-2 DC HR4066
CN16
VOLUME assembly (AWZ4544)
IC503 TA8409S
CS11 100/10
ACX1074
CHASSIS GND
Q501 XDC124ES-T
R507 470 1/4W
CS12 100/16
R517 1/2
TONE & BALANCE CONT
IC502 NJM4558DXP
IC502 NJM4558D
D505 RDS.1E382-TP
D503
D504
IC501 NJM4558DXP
IC501
To CONNECTION assembly CN54
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
-R CH
MUTE AC
VR501
To CONNECTION assembly CN55
KP200IA6L
DA
CK
+12
-12
M+12
M.G
D.G
ST-2
DATA
CLK
+12V
-12V
+5V
-5V
R501 1/4W
R502
+5V
-5V
IC562 TC9154AP
IC563 TC9184P
IC564 NJM2220L
IC561 NJM2220L
C569 10/50
C579 10/50

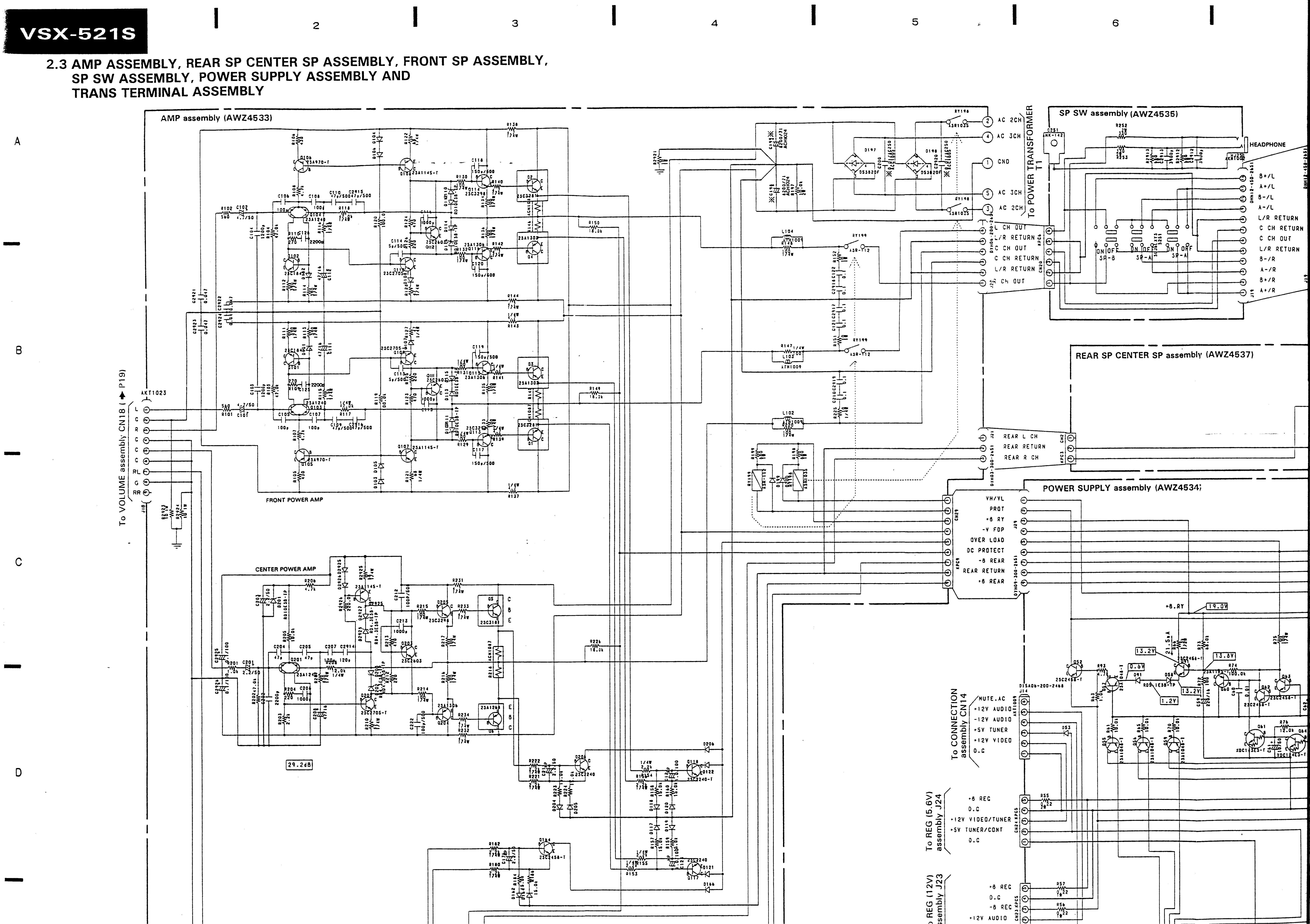

FM
75Ω
AM
LOOP
L901
L902
TC901
ACM-014
D901
Q901
R902 47
T901 ATC-149
D902
D903
C908 1p
Q905
L906 2.2μH
L905 2.2μH LAU2R2M
Q902
C915 8p
Q903
L904
Q904
D904
R426 220
R425 470
R428 470
C422 0.01/16
R421 220
C488 0.01
L432 2.2μH
C920 1000p
C917 5p
OSC OUT
AM RF TUNING BLOCK AXX1011
R471 4.7k
C471 0.01/16
C472 0.047
R474 100k
C473 0.01/16
C475 10/50
VREF
S-METER
VCO
T-METER
VR451 : VCO ADJ.
D435
C454 470p
R452 15k
R453 1k
C456 1.5/50
C455 3.3/50
VR451 4.7k
C457 0.22/50
R431 22k
C453 0.047
IC451
VCO
DC AMP
PHASE DETECTOR
PHASE DETECTOR
DC AMP
SCHMITT CIRCUIT
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
F431 ATF-208
R436 22k
R433 47k
R435 4.7k
C436 0.068
C435 4700p
C433 4.7/50
VR431 : TUNED INDICATION ADJ.
VR431 10k
C437 10/50
VR432 15k
C438 2.2/50
VR432: TUNED STEREO IND.
D431
R442 15k
C423 2.2/50 (NP)
R447 1M
R443 4.7k
F441 ATF-146
Q441
R445 2.2k
R430 4.7k
C424 680p
C445 47p
IC431
OSC
REG
RF
MIX
AGC
AM-IF
DET
BUFFER
SIGNAL METER
LEVEL DIT
LEVEL DIT
SD ADJ.
LED DRIVER
POST AMP
FM-IF
Q.D
S. CURVE
D432
C439 0.022
C440 0.022
C452 10/50
R454 47k
R472 1k
C466 220p
R462 51k
R455 22k
C459 1000p
R456 22k
R463 51k
R466 62k
C460 1000p
R457 10k
R458 10k
C451 100/16
C458 47/16
D433
R451 100k
D434
R484 10k
C444 330p
R441 100
X431 ATF1027
C443 3.3/50
C442 0.1/50
C441 0.022/25
R440 6.8k
L431 ATE-079
L431 CENTER ADJ.
R480 470
C480 0.01/16
R489 220
C484 47/16
C485 0.01/16
VT
R475 10k
R473 2.7k
C476 0.01/16
C478 0.22
R476 5.6k
C477 0.01
Q471
R479 10k
R483 680
R477 560
R478 560
Q472
IC471
Vss PD2 PD1 VDD2 VDD FMIN AMIN BO3
XOUT XIN CE CK DATA SYC BO1 BO2
X471 ASS1005
C481 15p
C482 15p
C483 100p
R487 4.7k
R486 4.7k
R488 4.7k
R481 4.7k
R482 4.7k
R490 2.2k
Q473
Q474
Q451
R467 820
C463 47/16
C464 47/16
R485 10k
R461 4.7k
R459 3.9k
R460 3.9k
C461 4.7/50
C462 4.7/50
R465 18k
R464 18k
C468 1800p
C469 1800p
Q454
Q453
Q452
R468 10k
R469 10k
R470 4.7k
C465 0.01/16
CN401
STOP
MUTE
L ch OUT
GND
R ch OUT
STEREO
DATA
CK
CE
+5V
+12V
GND
To CONNECTION assembly CN51
IC503
TA8409S
ACX1074
CHASSIS GND
R507
Q501
XDC124ES-T
VR501
To CONNECTION assembly CN54
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
-R CH
MUTE AC
To CONNECTION assembly CN55
DA
CK
+12
-12
M+12
M.G
D.G
ST-2
NJM4558DXP
IC502
NJM4558LD
IC501
+5V
-5V
IC522
TC9154AP
REAR L CH
CENTER CH
IC521
NJM4558DXP
C
D
E
F
1
2
3
4
5
6


TONE & BALANCE CONT
IC503
TA8409S
ACX1074
CHASSIS GND
To CONNECTION assembly CN54
REAR R
GND
REAR L
GND
L CH
GND
CENT CH
GND
-R CH
MUTE AC
To CONNECTION assembly CN55
DA
CK
+12
-12
M+12
M.C
D.C
ST-2
DATA
CLK
+12V
-12V
+5V
-5V
VR501
IC502
NJM4558DXP
IC501
IC562
TC9154AP
IC563
TC9184P
IC561
NJM2220L
IC564
IC522
REAR L CH
CENTER CH
TC9154AP
IC521
IC523
NJM4558DXP
CN18
KPE9
GND
CENTER
REAR L
REAR R
To AMP assembly J18 (→ P20)
S-METER
VCO
T-METER
VR451 : VCO ADJ.
IC451
VCO
DC AMP
PHASE DETECTOR
SCHUMITT CIRCUIT
STEREO/MONO CHANGEOVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE AND FREQUENCY CHECK
ENFORCEMENT MONAURAL AND ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
Q453
Q452
Q501
XDC124ES-T
C
D
E
F
3
4
5
6
7
8
9

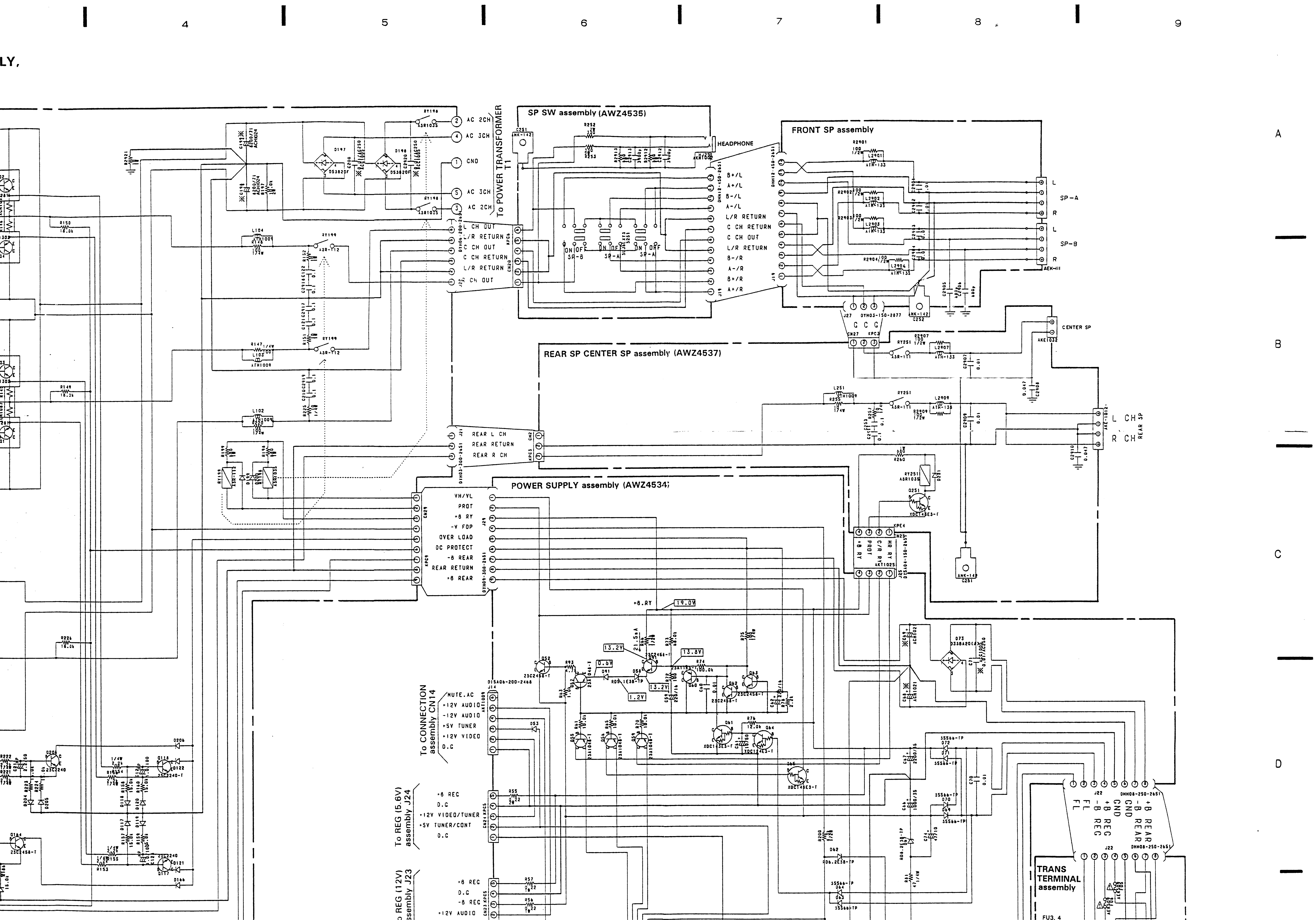
Any diode without part number indicates HSS104-02

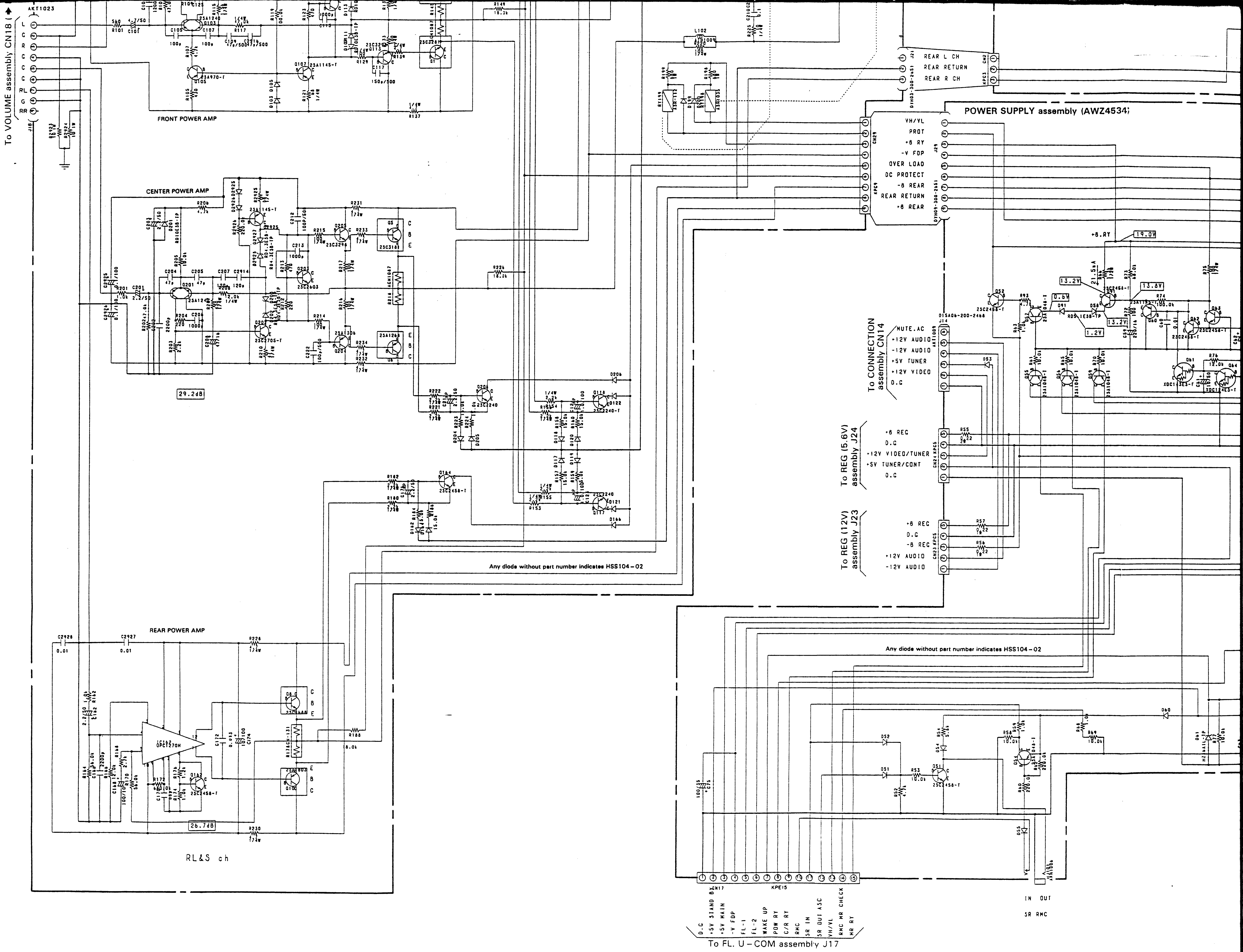
...embly CN51

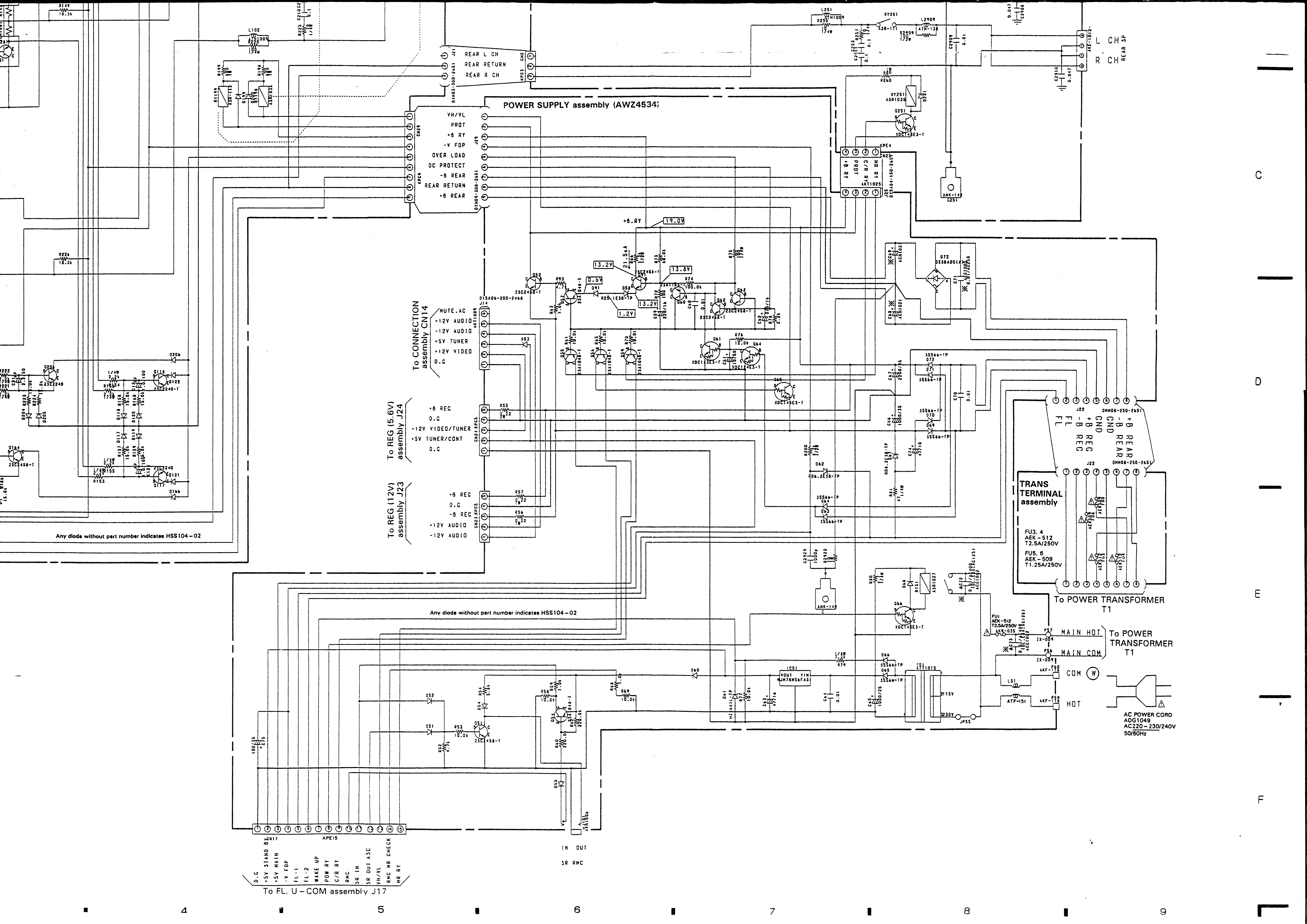
2.3 AMP ASSEMBLY, REAR SP CENTER SP ASSEMBLY, FRONT SP ASSEMBLY, SP SW ASSEMBLY, POWER SUPPLY ASSEMBLY AND TRANS TERMINAL ASSEMBLY


2
3
4
5
6
A
B
C
D
AMP assembly (AWZ4533)
FRONT POWER AMP
CENTER POWER AMP
29.2dB
To VOLUME assembly CN18 (➔ P19)
AKT1023
L
G
R
C
G
C
RL
G
RR
J18
AC 2CH
AC 3CH
GND
AC 3CH
AC 2CH
To POWER TRANSFORMER T1
SP SW assembly (AWZ4535)
HEADPHONE
B+/L
A+/L
B-/L
A-/L
L/R RETURN
C CH RETURN
C CH OUT
L/R RETURN
B-/R
A-/R
B+/R
A+/R
L CH OUT
L/R RETURN
C CH OUT
C CH RETURN
L/R RETURN
C CH OUT
ON OFF SP-B
ON OFF SP-A
ON OFF SP-A
REAR SP CENTER SP assembly (AWZ4537)
REAR L CH
REAR RETURN
REAR R CH
POWER SUPPLY assembly (AWZ4534)
VH/VL
PROT
+8 RY
-V FOP
OVER LOAD
DC PROTECT
-8 REAR
REAR RETURN
+8 REAR
+8.RY
19.0V
13.2V
13.8V
0.6V
13.2V
1.2V
To CONNECTION assembly CN14
MUTE.AC
+12V AUDIO
-12V AUDIO
+5V TUNER
+12V VIDEO
D.G
To REG (5.6V) assembly J24
+8 REC
D.G
+12V VIDEO/TUNER
+5V TUNER/CONT
D.G
To REG (12V) assembly J23
+8 REC
D.G
-8 REC
+12V AUDIO

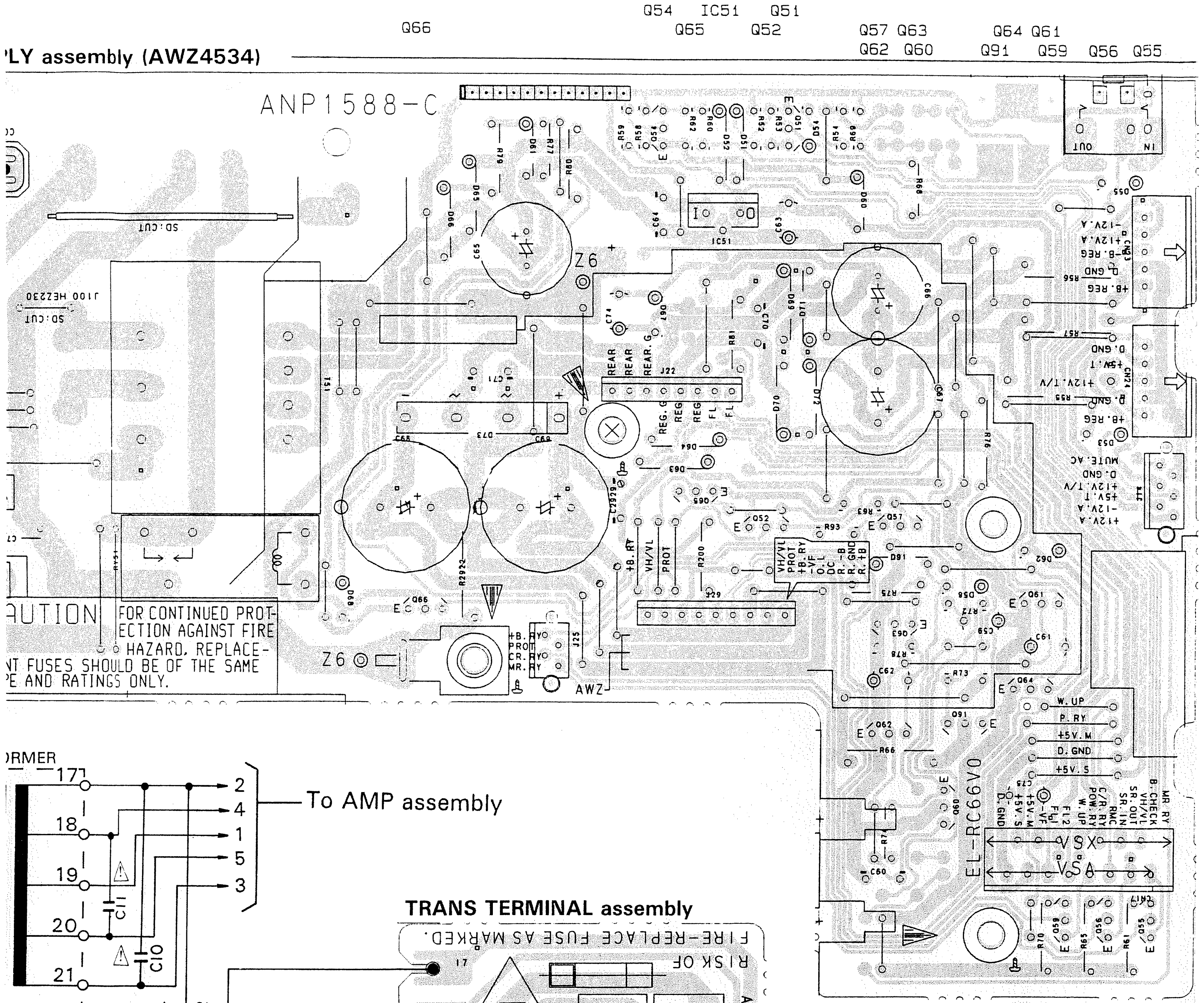
LY,


4
5
6
7
8
9
A
B
C
D
SP SW assembly (AWZ4535)
FRONT SP assembly
REAR SP CENTER SP assembly (AWZ4537)
POWER SUPPLY assembly (AWZ4534)
To POWER TRANSFORMER T1
AC 2CH
AC 3CH
GND
AC 3CH
AC 2CH
HEADPHONE
L CH OUT
L/R RETURN
C CH OUT
C CH RETURN
L/R RETURN
C CH OUT
B+/L
A+/L
B-/L
A-/L
L/R RETURN
C CH RETURN
C CH OUT
L/R RETURN
B-/R
A-/R
B+/R
A+/R
SP-A
SP-B
L
R
CENTER SP
L CH
R CH
REAR SP
REAR L CH
REAR RETURN
REAR R CH
VH/VL
PROT
+B RY
-V FDP
OVER LOAD
DC PROTECT
-B REAR
REAR RETURN
+B REAR
+B RY
PROT
C/R RY
HR RY
+B.RY
19.0V
13.2V
0.6V
13.8V
13.2V
1.2V
To CONNECTION assembly CN14
MUTE.AC
+12V AUDIO
-12V AUDIO
+5V TUNER
+12V VIDEO
D.C
To REG (5.6V) assembly J24
+B REC
D.C
+12V VIDEO/TUNER
+5V TUNER/CONT
D.C
To REG (12V) assembly J23
+B REC
D.C
-B REC
+12V AUDIO
FL
FL
-B REC
+B REC
GND
CND
-B REAR
+B REAR
TRANS TERMINAL assembly
FU3, 4
ON
OFF
SP-B
SP-A
R150 18.0k
R149 18.3k
R226 18.0k
ASR-112
ASR1035
ATH1009
ATH-133
AKT1025
ANK-142
AEK-111
AKE1032
DS3820F
D3SBA20(A)
2SC2458-T
2SA1048-T
XOC1453E3-T
2SC2240
1SS66-TP

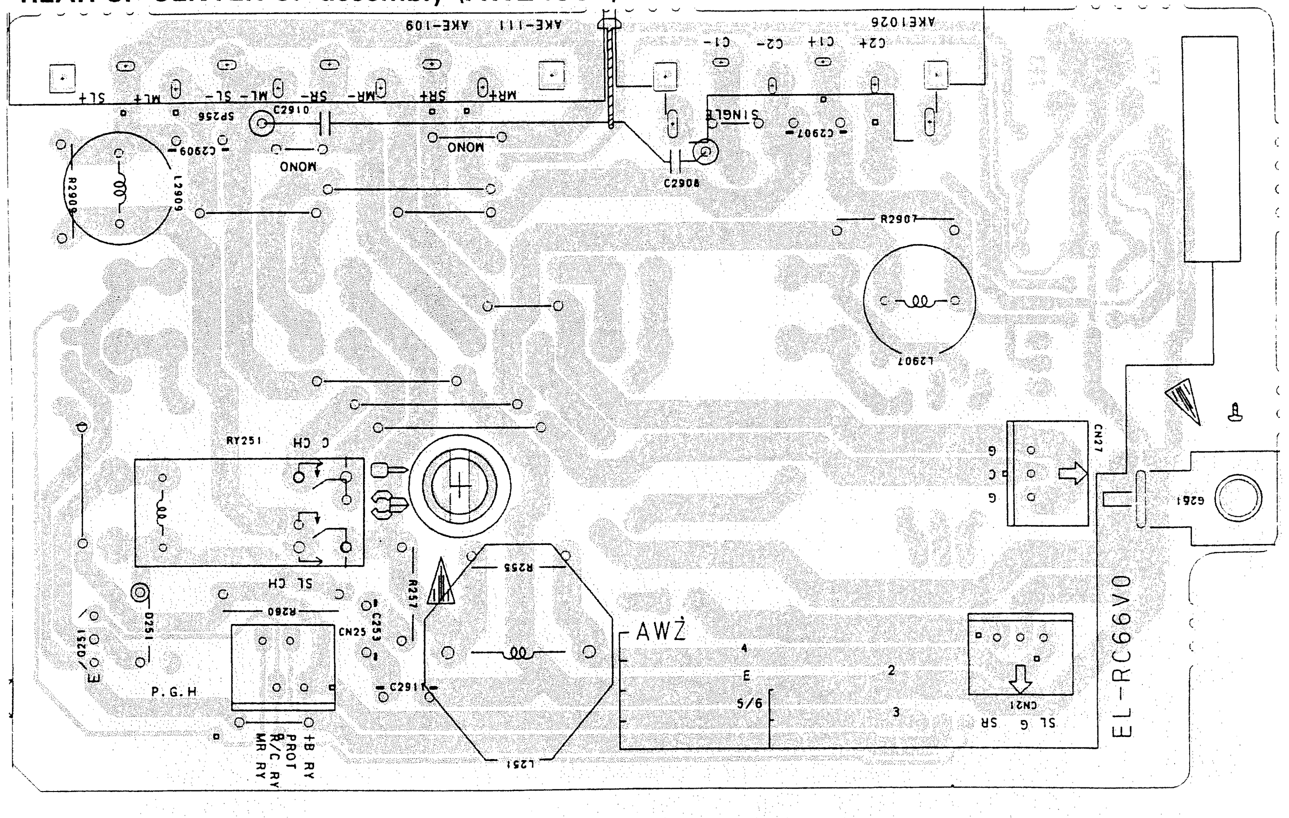

To VOLUME assembly CN18
AKT1023
L
C
R
G
G
G
RL
G
RR
J18
FRONT POWER AMP
CENTER POWER AMP
29.2dB
REAR POWER AMP
IC162
OPC1270H
26.7dB
RL&S ch
Any diode without part number indicates HSS104-02
L102
RY199
REAR L CH
REAR RETURN
REAR R CH
J21
CN2
KPC3
POWER SUPPLY assembly (AWZ4534)
VH/VL
PROT
+8 RY
-V FDP
OVER LOAD
DC PROTECT
-8 REAR
REAR RETURN
+8 REAR
CN29
KPC9
J29
+8.RY
19.0V
13.2V
0.6V
1.2V
13.8V
To CONNECTION assembly CN14
MUTE.AC
+12V AUDIO
-12V AUDIO
+5V TUNER
+12V VIDEO
D.G
J14
AKT1009
To REG (5.6V) assembly J24
+8 REG
D.G
+12V VIDEO/TUNER
+5V TUNER/CONT
D.G
CN24 KPC5
To REG (12V) assembly J23
+8 REG
D.G
-8 REG
+12V AUDIO
-12V AUDIO
CN23 KPC5
Any diode without part number indicates HSS104-02
CN17
KPE15
D.G
+5V STAND BY
+5V MAIN
-V FDP
FL-1
FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUT ASC
VH/VL
RMC HR CHECK
HR RY
To FL. U-COM assembly J17
IN
OUT
SR RMC

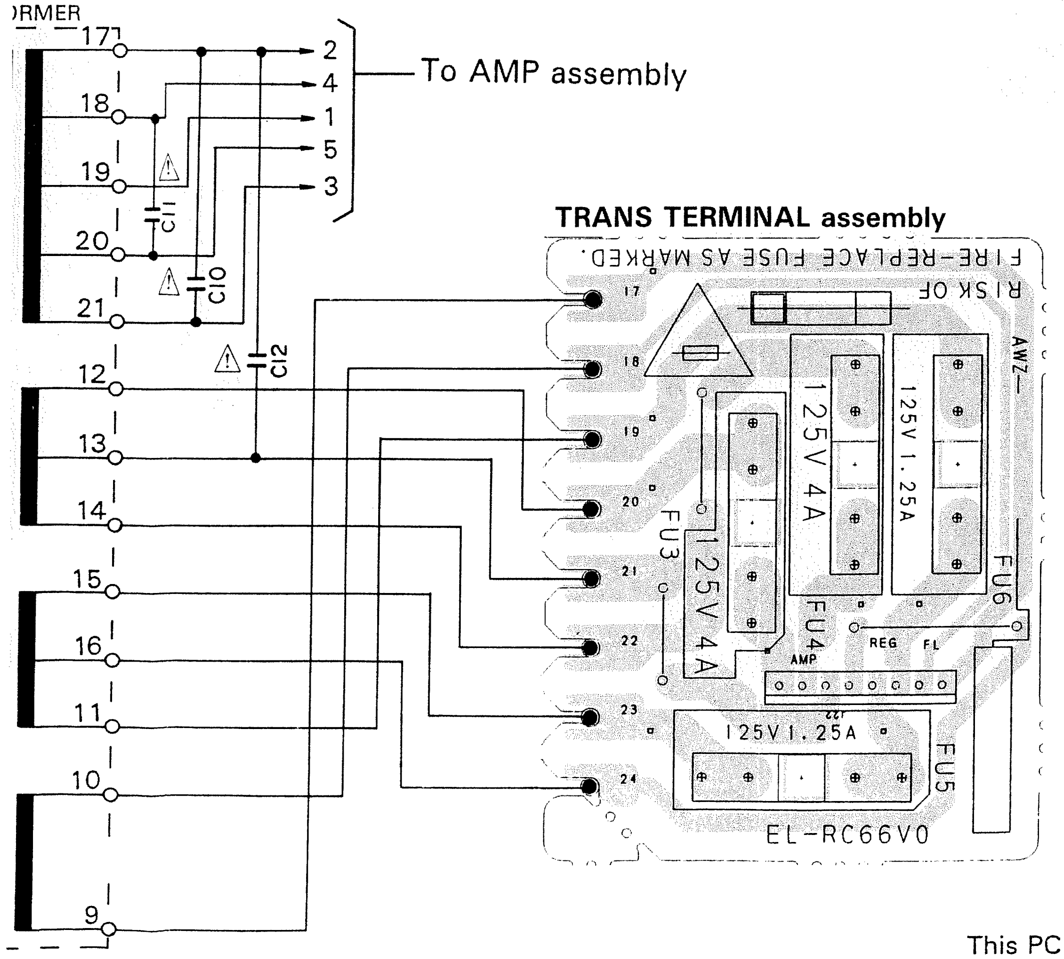

POWER SUPPLY assembly (AWZ4534)
REAR L CH
REAR RETURN
REAR R CH
VH/VL
PROT
+B RY
-V FDP
OVER LOAD
DC PROTECT
-B REAR
REAR RETURN
+B REAR
+B.RY
19.0V
13.2V
21.5mA
13.8V
0.6V
1.2V
13.2V
+B RY
PROT
C/R RY
HR RY
L CH
R CH
REAR SP
ANK-14P
C251
To CONNECTION assembly CN14
MUTE.AC
+12V AUDIO
-12V AUDIO
+5V TUNER
+12V VIDEO
D.G
To REG (5.6V) assembly J24
+B REC
D.G
+12V VIDEO/TUNER
+5V TUNER/CONT
D.G
To REG (12V) assembly J23
+B REC
D.G
-B REC
+12V AUDIO
-12V AUDIO
Any diode without part number indicates HSS104-02
Any diode without part number indicates HSS104-02
FL
FL
-B REC
+B REC
GND
GND
-B REAR
+B REAR
J22
DHH08-250-2651
TRANS TERMINAL assembly
FU3, 4
AEK-512
T2.5A/250V
FU5, 6
AEK-509
T1.25A/250V
To POWER TRANSFORMER T1
FU1
AEK-512
T2.5A/250V
MAIN HOT
MAIN COM
To POWER TRANSFORMER T1
COM
W
HOT
IC51
VOUT VIN
NJM78M56FA3
T51
ATT1101S
211SV
230V
JPSS
AC POWER CORD
ADG1049
AC220-230/240V
50/60Hz
D.G
+5V STAND BY
+5V MAIN
-V FDP
FL-1
FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUT ASC
VH/VL
RMC HR CHECK
HR RY
KPE15
CN17
To FL. U-COM assembly J17
IN OUT
SR RMC
C
D
E
F
4
5
6
7
8
9

'LY assembly (AWZ4534)

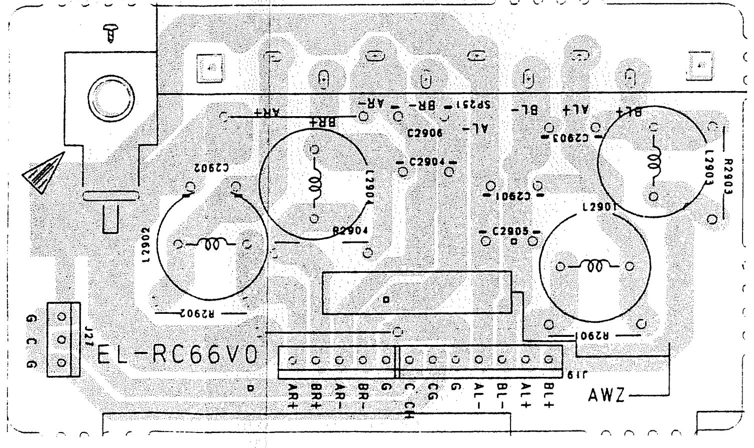

Q66
Q54 IC51 Q51
Q65 Q52
Q57 Q63
Q62 Q60
Q64 Q61
Q91 Q59 Q56 Q55
ANP1588-C
Z6
J1OO HE2230
SD:CUT
IC51
REAR
REAR
REAR.G
J22
REG.G
REG
REG
FL
FL
+B.REG
+12V.A
-12V.A
D.GND
+12V.T/V
+5V.T
MUTE.AC
+8.REG
-B.REG
GND
+8.RY
VH/VL
PROT
+B.RY
PROT
CR.RY
MR.RY
J25
AWZ
J29
W.UP
P.RY
+5V.M
D.GND
+5V.S
EL-RC66V0
VSX
VSA
AUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE-
NT FUSES SHOULD BE OF THE SAME
PE AND RATINGS ONLY.
Z6
IN
OUT

REAR SP CENTER SP assembly (AWZ4537)

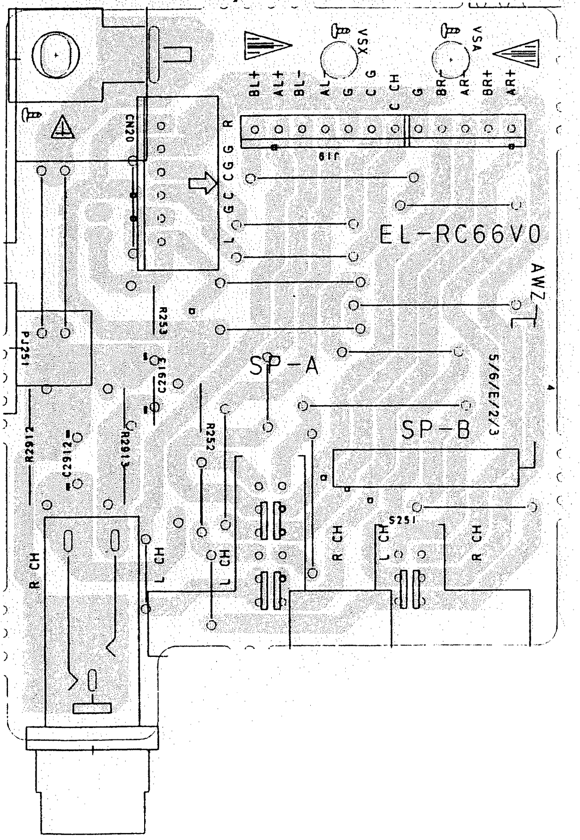

AKE1026
AKE-109 AKE-111
MONO
MONO
SINGLE
C2910
C2906
R2907
L2907
L2909
R2909
RY251
C CH
SL CH
R280
R255
R257
L251
C2916
CN25
D251
P.G.H
+B RY
PROT
R/C RY
MR RY
AWZ
EL-RC66V0
CN27
CN21
SL G SR
G261


ORMER
17
18
19
20
21
12
13
14
15
16
11
10
9
C11
C10
C12
2
4
1
5
3
To AMP assembly
TRANS TERMINAL assembly
FIRE-REPLACE FUSE AS MARKED
RISK OF
17
18
19
20
21
22
23
24
125V 4A
125V1.25A
125V 4A
125V1.25A
FU3
FU4
FU5
FU6
AMP
REG
FL
J22
AWZ
EL-RC66V0

FRONT SP assembly


AR+
BR+
AR-
BR-
SP251
AL-
BL-
AL+
BL+
C2906
C2904
C2902
C2903
C2901
C2905
L2902
L2904
L2903
L2901
R2902
R2904
R2903
R2901
EL-RC66V0
AWZ
J18
J27
G C G

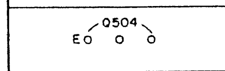
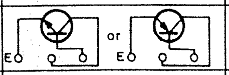
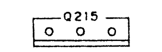
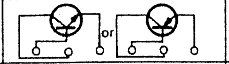
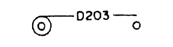
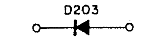
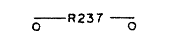
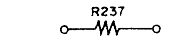
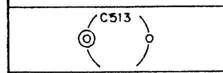
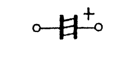
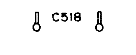
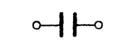
SP SW assembly (AWZ4535)


VSX
VSA
BL+
AL+
BL-
AL-
G
C CH
G
BR-
AR-
BR+
AR+
CN20
J18
EL-RC66V0
AWZ
SP-A
SP-B
P.J251
R253
R252
R2912
C2912
R2913
S251
R CH
L CH
5/6/E/2/3

This PCB connection diagram is viewd from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

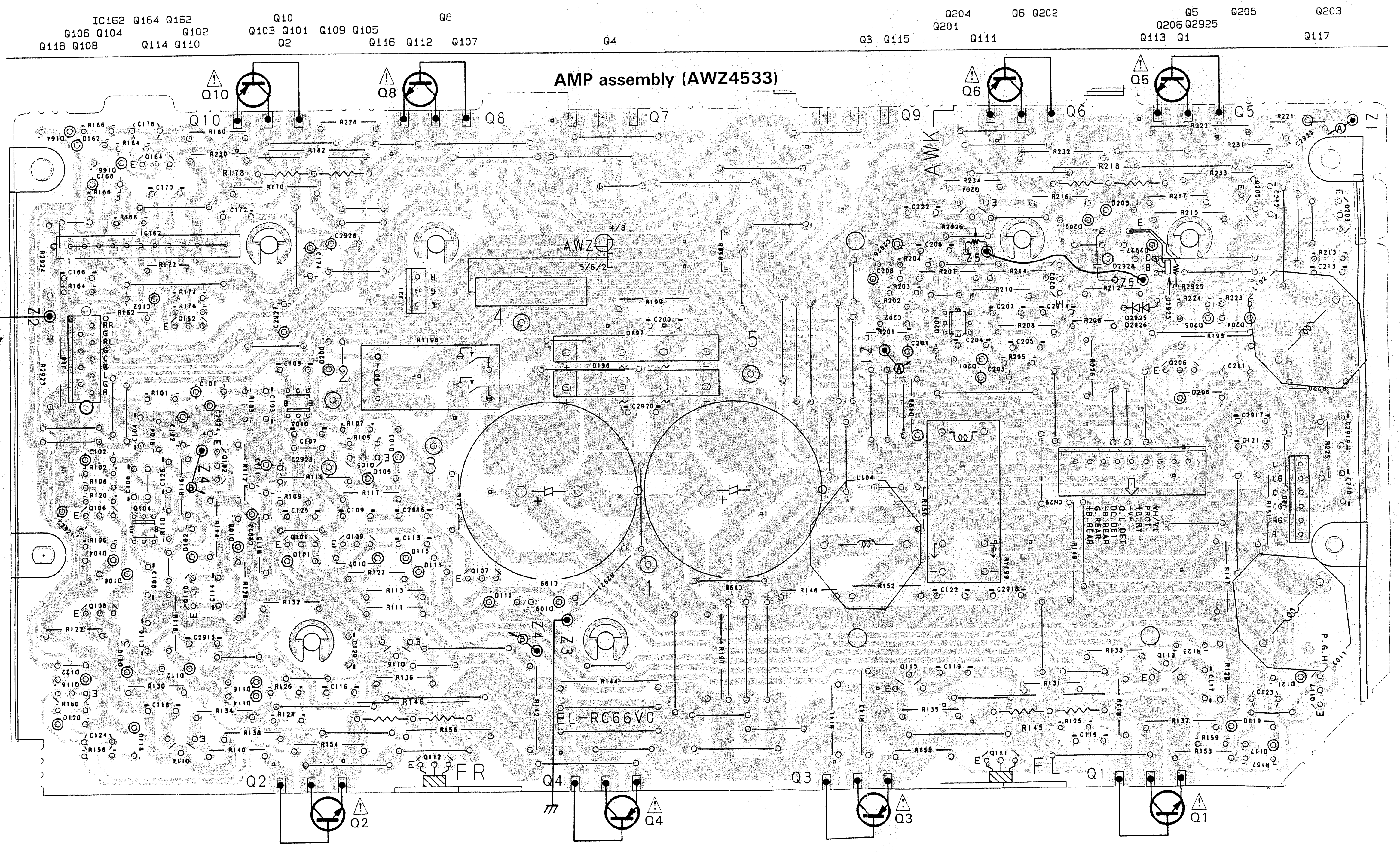
Line Voltage Selection

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.
4. Stick the line voltage label on the rear panel.

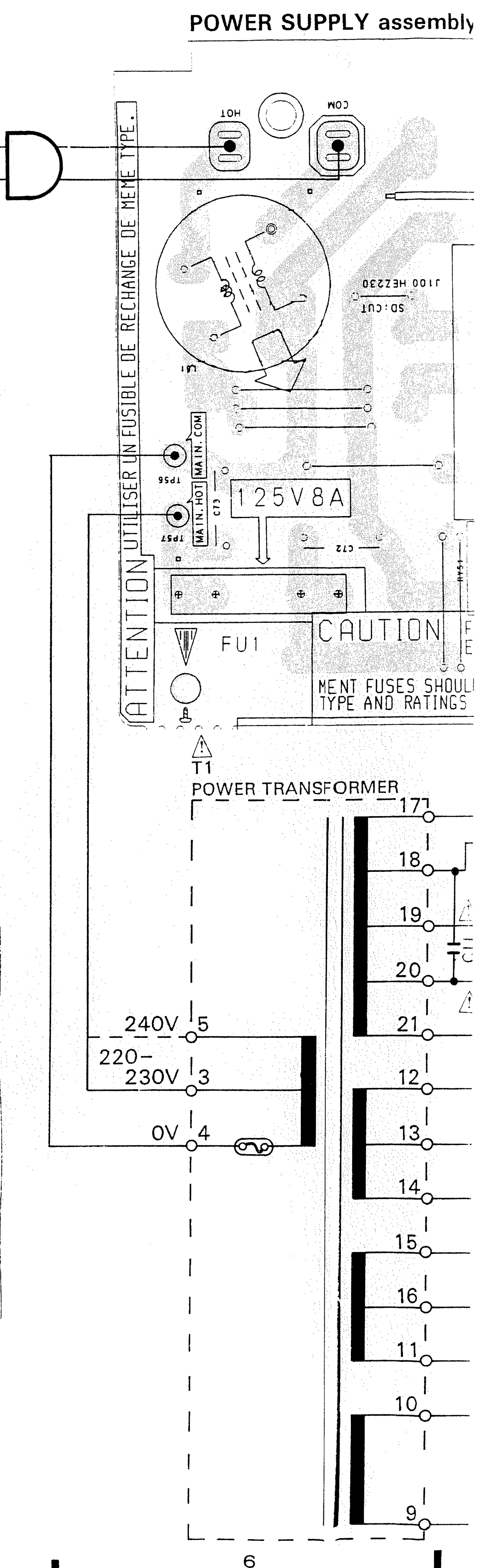
Part No.	Description
AAX-193	220V label
AAX-192	240V label

⚠ AC POWER CORD
AC 220-230/ 240V
50/60Hz



AMP assembly (AWZ4533)

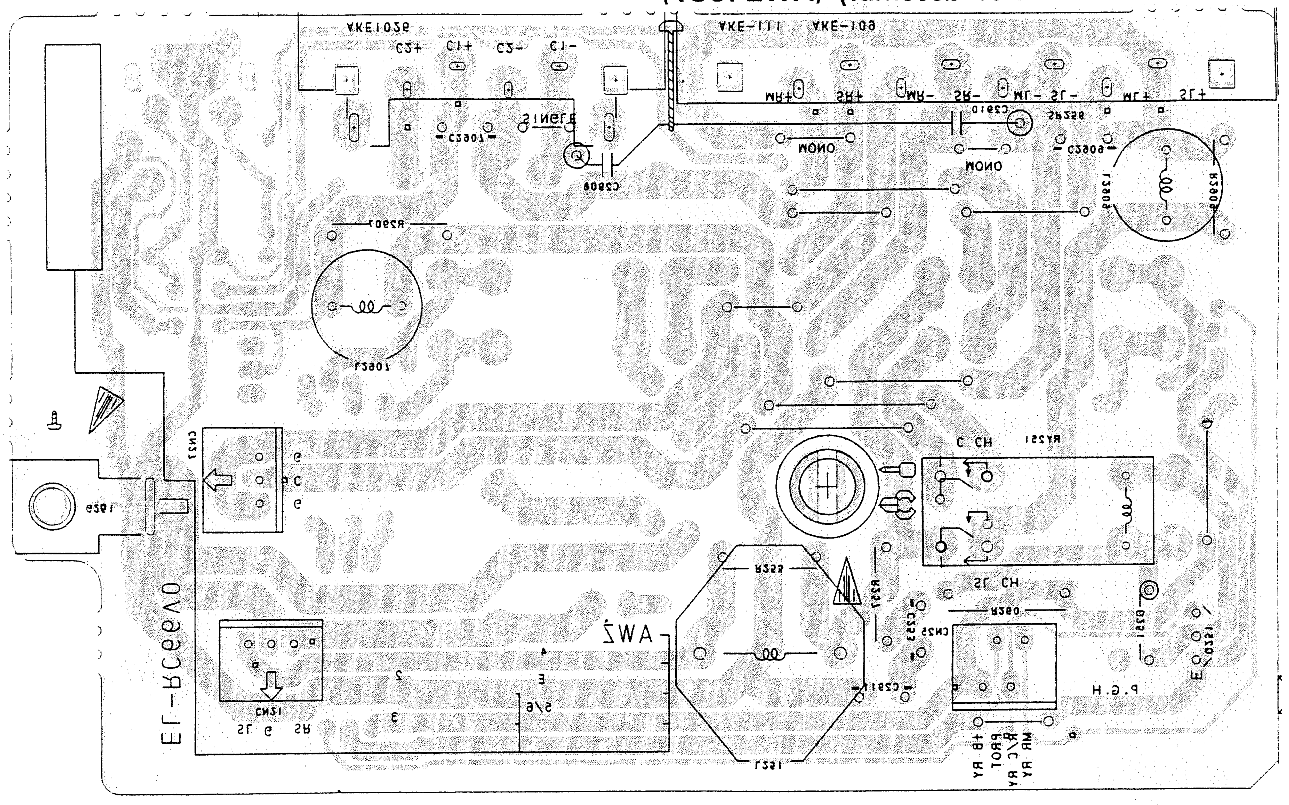
IC162 Q164 Q162
Q106 Q104
Q118 Q108
Q102
Q114 Q110
Q10
Q103 Q101 Q109 Q105
Q2
Q8
Q116 Q112 Q107
Q4
Q204
Q201
Q3 Q115
Q6 Q202
Q111
Q5
Q206 Q2925
Q113 Q1
Q205
Q203
Q117
Q10
Q8
Q7
Q9
Q6
Q5
AWK
AWZ
Z1
Z2
Z3
Z4
Z5
RY198
EL-RC66V0
FR
FL
Q2
Q4
Q3
Q1



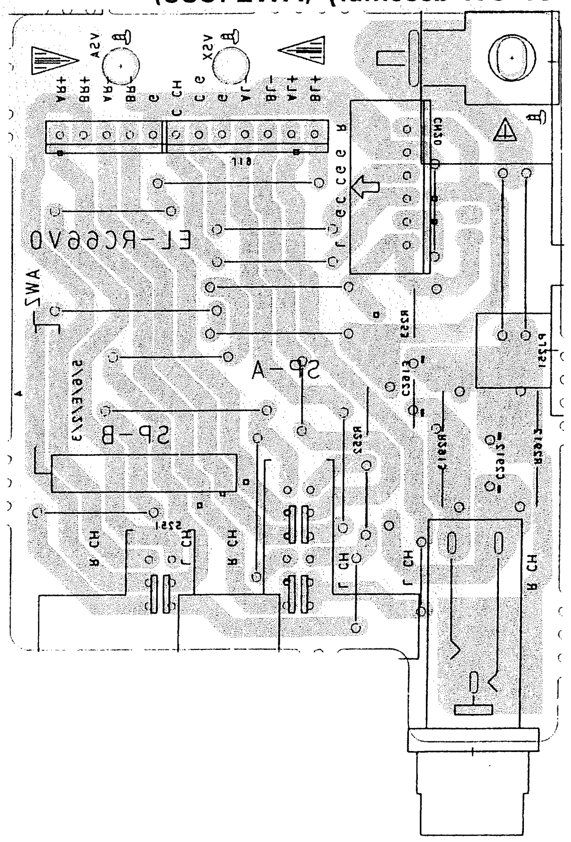
POWER SUPPLY assembly

HOT
COM
J100 HE2230
SD:CUT
L61
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.
MAIN.COM
MAIN.HOT
TP56
TP57
C73
125V8A
C72
FU1
CAUTION
MENT FUSES SHOUL
TYPE AND RATINGS
⚠ T1
POWER TRANSFORMER
240V 5
220-230V 3
0V 4
17
18
19
20
21
12
13
14
15
16
11
10
9

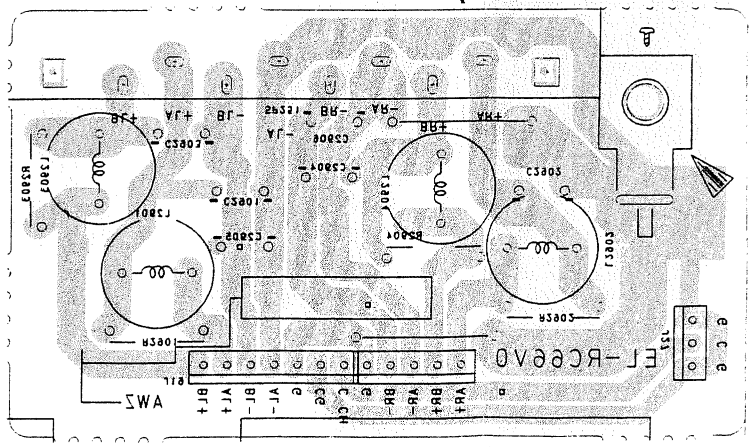
REAR SP CENTER SP assembly (AWZ4537)


VKE1052
C2+ C1+ C2- C1-
VKE-111 VKE-601
+RW +RS -RW -RS -1W -1S +1W +1S
C2910 C2909 C2908
MONO
L2901 L2902
R2901 R2902
C CH
RY291
CN31 CN32
SL CH
P.G.H
+B RY
PROT
R/C RY
AWZ
EL-RC66V0
SR S SL

SP SW assembly (AWZ4535)

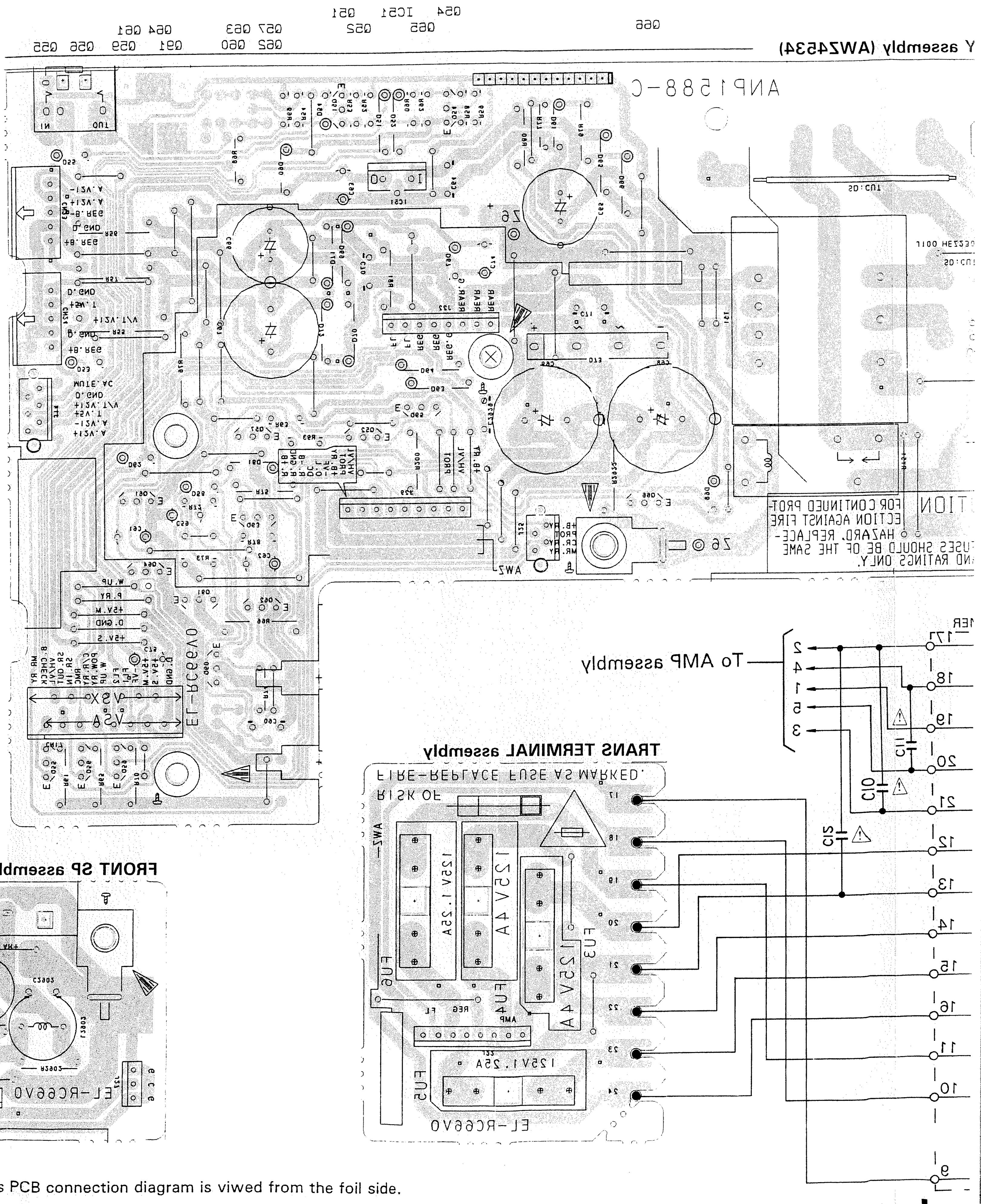

+RA +RB -RA -RB
+LA +LB -LA -LB
CN30
SP-A
SP-B
EL-RC66V0
AWZ
R CH
L CH

FRONT SP assembly


+LB -LB +LA -LA -RB -RA +RB +RA
L2801 L2802 L2803 L2804
EL-RC66V0
AWZ

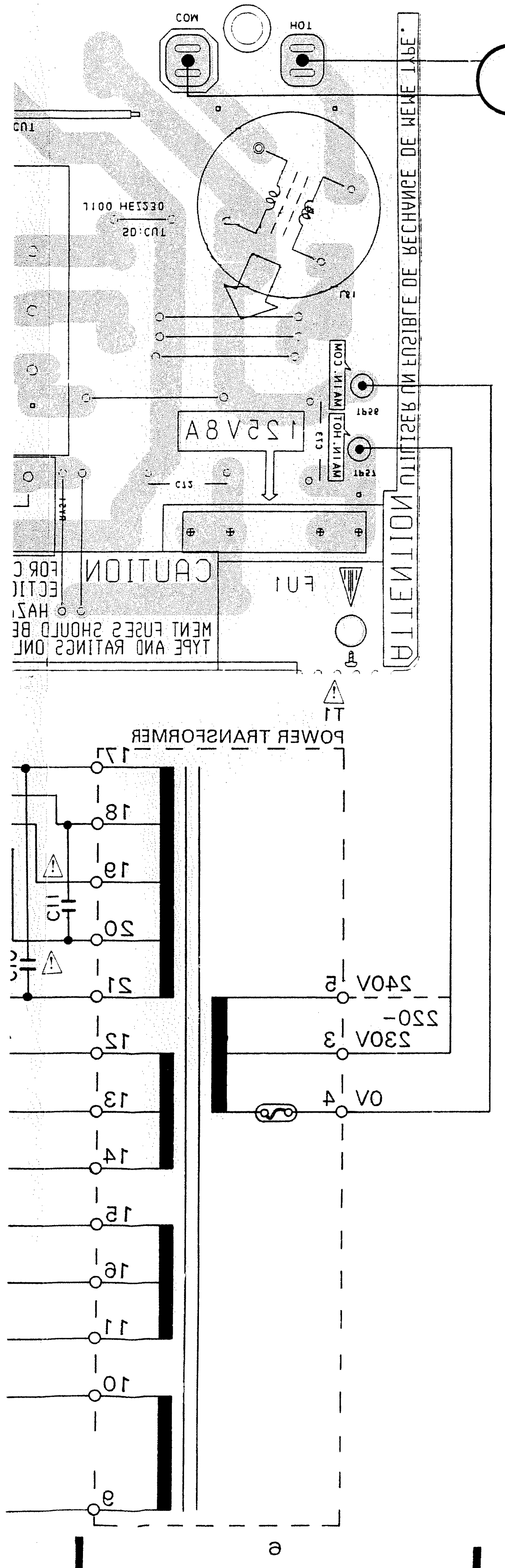
Y assembly (AWZ4534)

TRANS TERMINAL assembly


Q55 Q56 Q59 Q61 Q64 Q60 Q63 Q57 Q62 Q52 Q65 Q51 IC51 Q54 Q66
ANP1588-C
IN OUT
-12V.A +12V.A
+B.RR
D.GND
+5V.M
+12V.1 -12V.1
MUTE.AC
D.GND
W.UP
P.RY
+5V.M
D.GND
+5V.S
EL-RC66V0
VSX VSA
AWZ
FOR CONTINUED PROT-
ECTION AGAINST FIRE
HAZARD. REPLACE-
FUSES SHOULD BE OF THE SAME
AND RATINGS ONLY.
To AMP assembly
2
4
1
5
3
C11
C10
C12
RISK OF FIRE-REPLACE FUSE AS MARKED.
125V1.25A
125V4A
FU3
FU4
FU5
FU6
AMP
REG
FL
17 18 19 20 21 22 23 24
17 18 19 20 21 12 13 14 15 16 11 10 9

This PCB connection diagram is viwed from the foil side.

POWER SUPPLY assembly (A


AC POWER CORD
AC 220–230/240V
50/60Hz
POWER TRANSFORMER
T1
CAUTION
FU1
125V8A
240V
220–230V
0V
5
3
4
9
10
11
12
13
14
15
16
17
18
19
20
21
C11

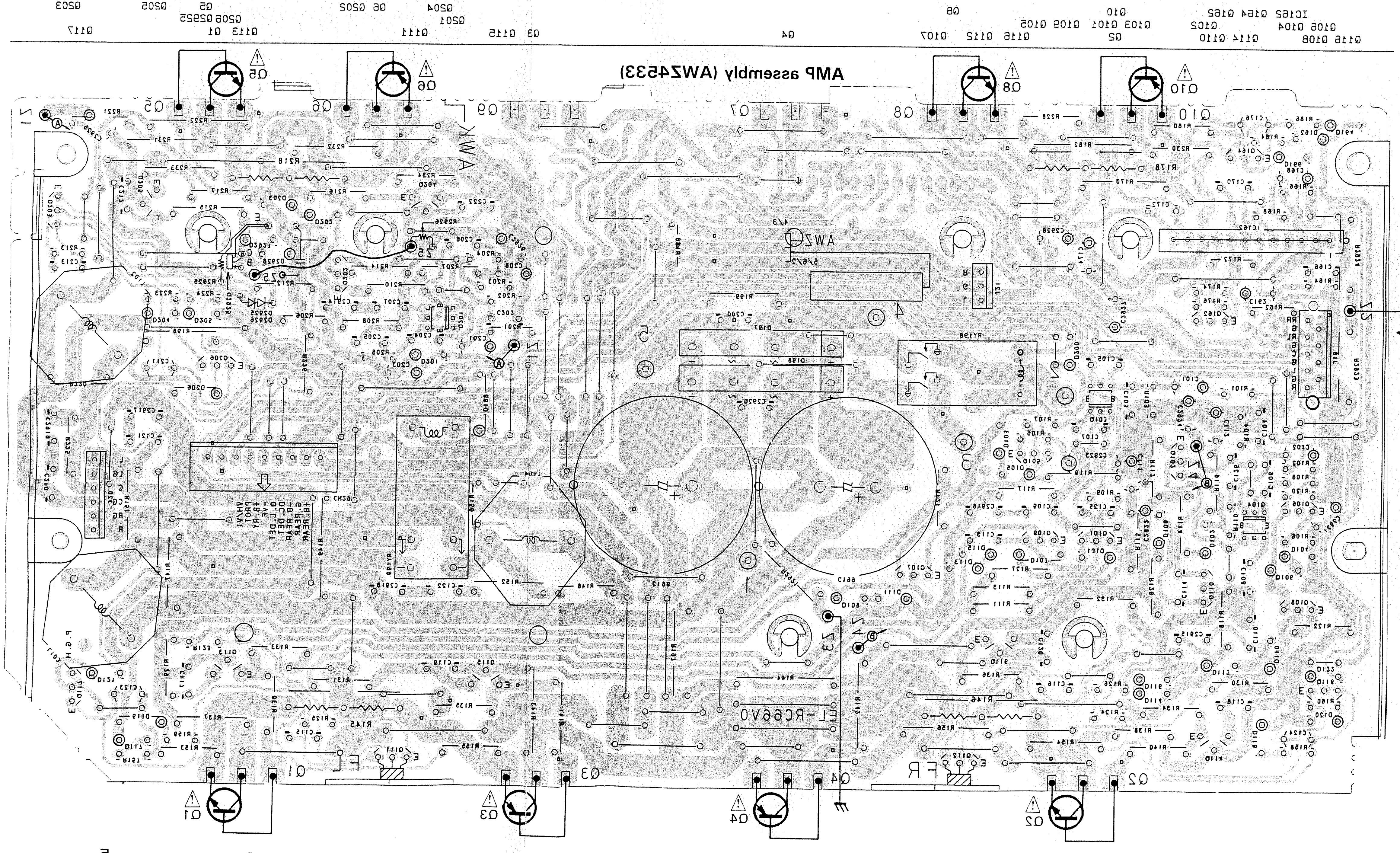
Line Voltage Selection

Line voltage can be changed with the following steps.

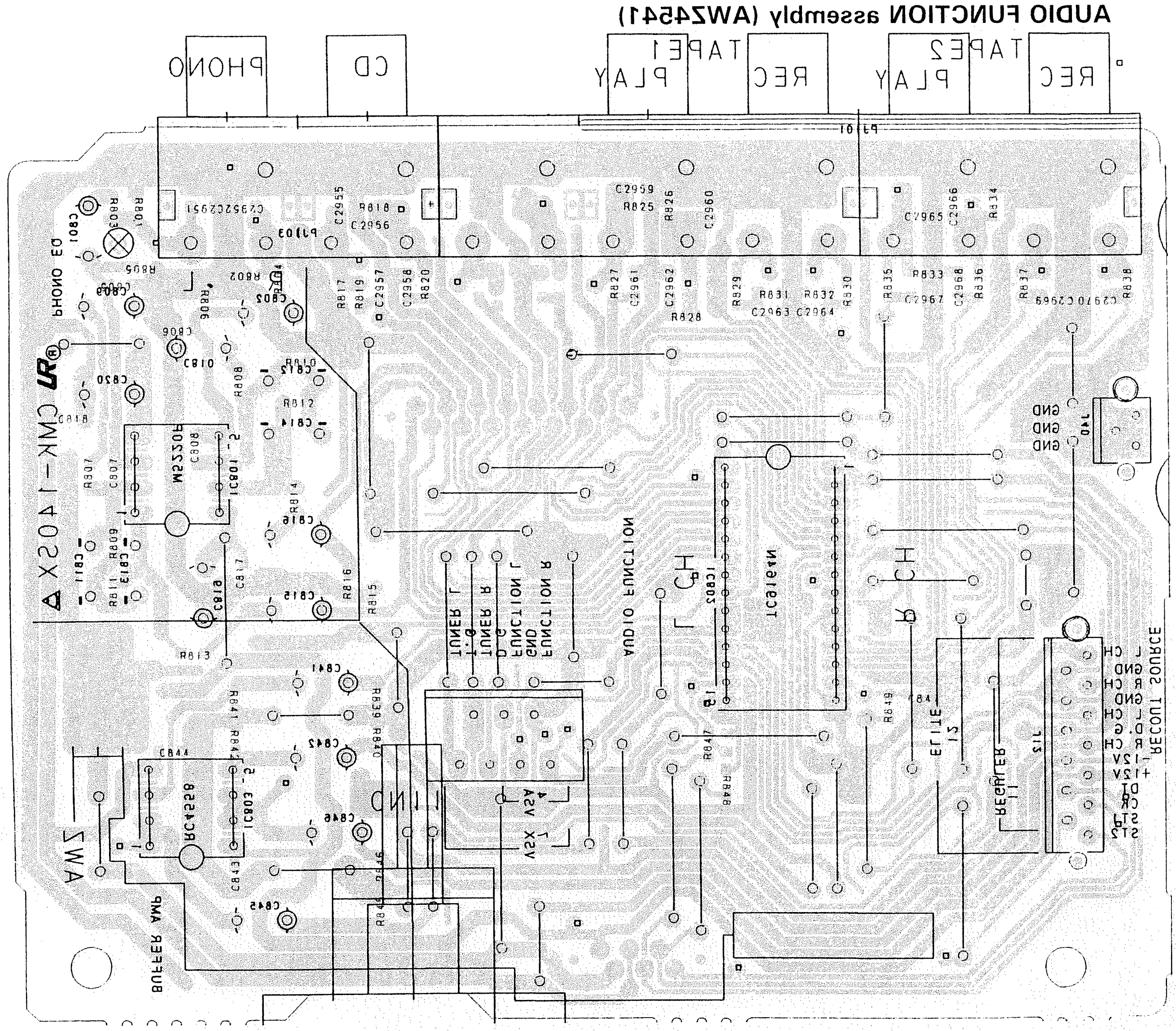
1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.
4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX−193	220V label
AAX−192	240V label

AMP assembly (AWZ4533)

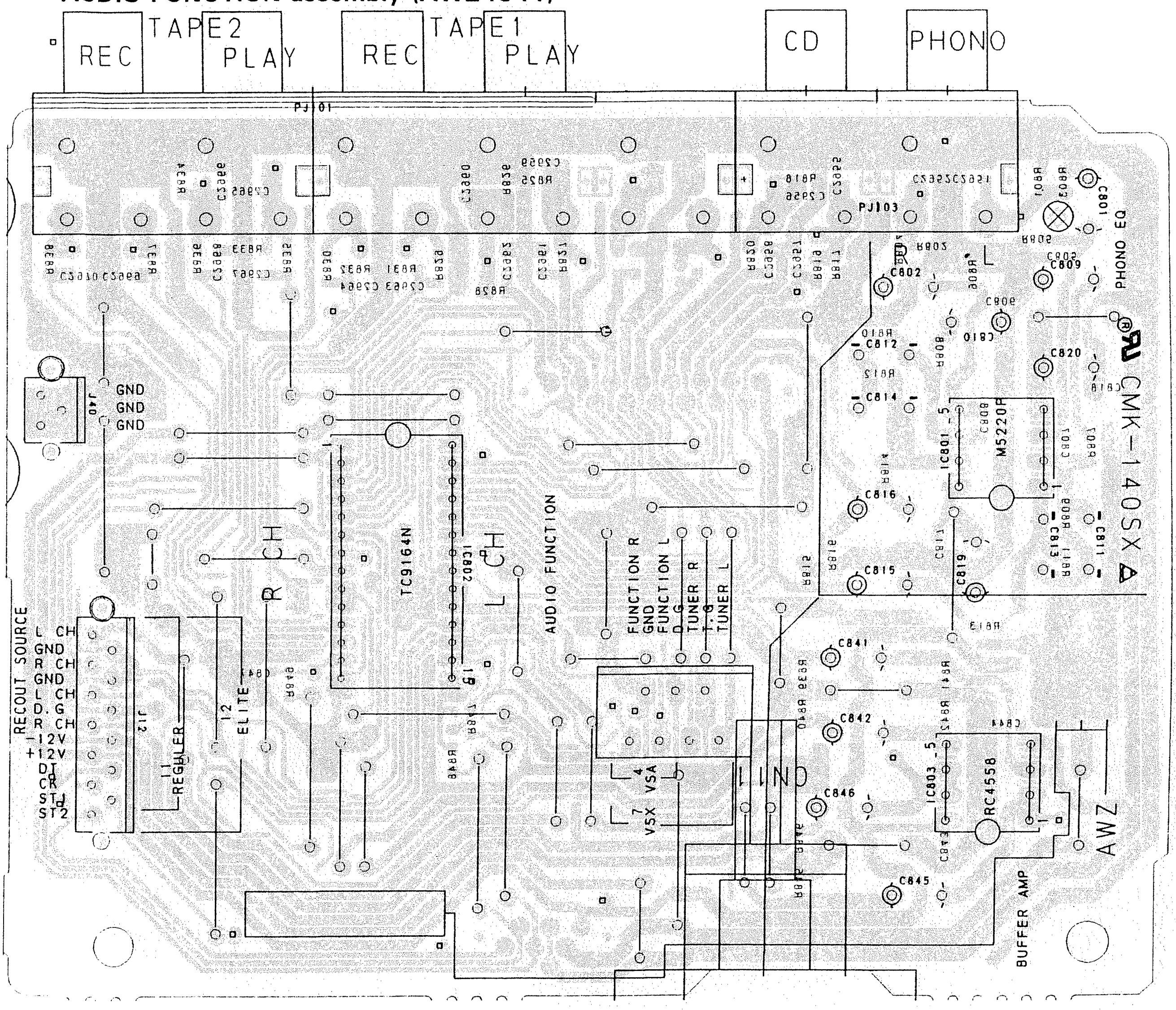

Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
AWZ
ELL-RC69V0
FR
FL

2.4 AUDIO FUNCTION ASSEMBLY


AUDIO FUNCTION assembly (AWZ4541)
PHONO
CD
TAPE1
PLAY
REC
TAPE2
PLAY
REC
PHONO EQ
AX2041-CMK-1
IC801
M5220L
IC802
IC3191N
IC803
RC4558
AUDIO FUNCTION
TUNER L
TUNER R
FUNCTION L
GND
FUNCTION R
VSX 4
VSX 7
L CH
R CH
GND
GND
GND
RECORD SOURCE
L CH
GND
R CH
GND
L CH
D.G
R CH
-12V
+12V
D1
CR
ST1
ST2
BUFFER AMP
AWZ

This PCB connection diagram is viwed from the foil side.

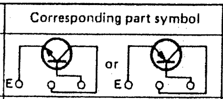
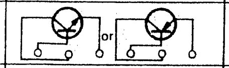
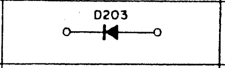
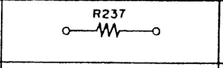
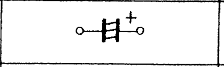
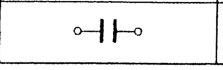
AUDIO FUNCTION assembly (AWZ4541)


TAPE2
REC
PLAY
TAPE1
REC
PLAY
CD
PHONO
PJ101
PJ103
J40
GND
GND
GND
PHONO EQ
CMK-140SX
C801
C802
C809
C810
C812
C814
C815
C816
C819
C820
IC801_5
M5220P
TC9164N
IC802
R CH
L CH
AUDIO FUNCTION
FUNCTION R
GND
FUNCTION L
D.G
TUNER R
T.G
TUNER L
RECOUT SOURCE
L CH
GND
R CH
GND
L CH
D.G
R CH
-12V
+12V
DT
CR
ST1
ST2
J12
11
REGULER
12
ELITE
C841
C842
C846
C845
IC803_5
RC4558
BUFFER AMP
AWZ
VSA
VSX
4
7
CN11
A
B
C

This PCB connection diagram is viewd from the parts mounted side.

NOTE

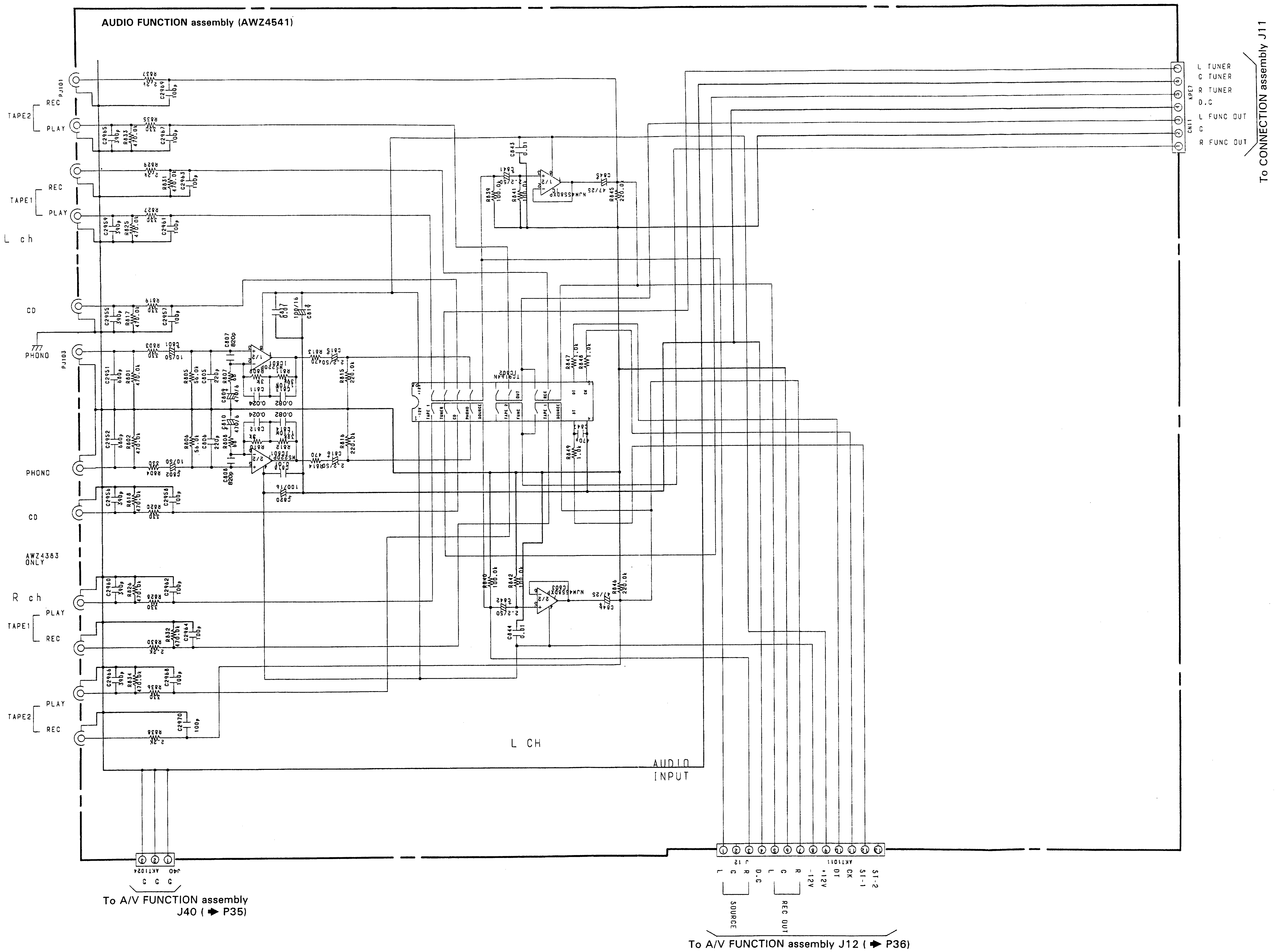
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E Q504	 E or E	Transistor
Q215	 or	Radiator type transistor
D203	 D203	Diode
R237	 R237	Resistor
C513	 +	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

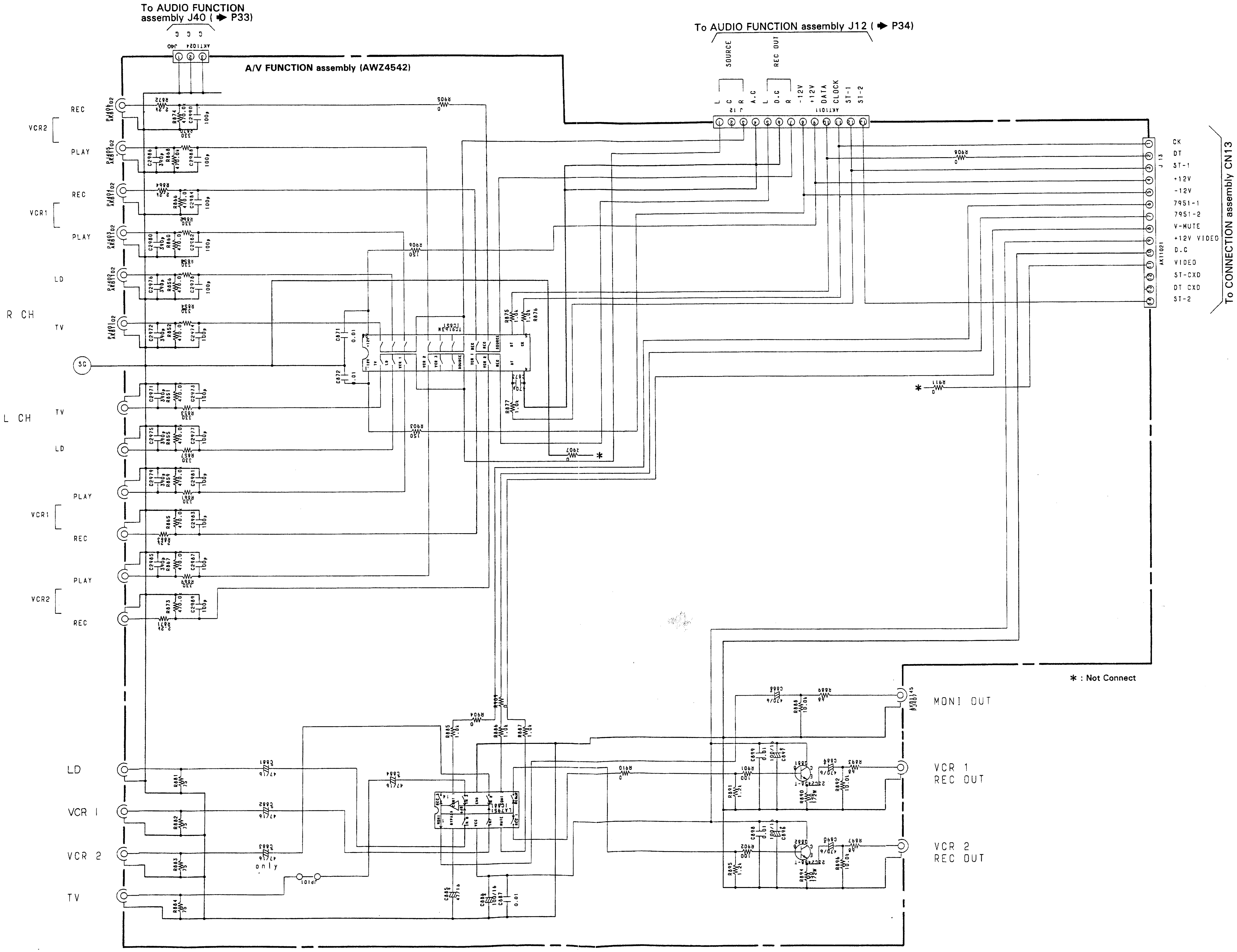
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

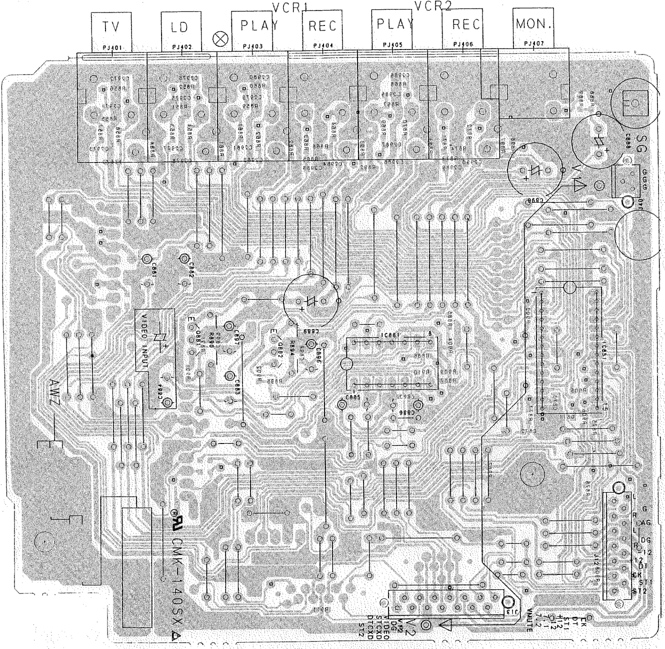
3. The capacitor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.


AUDIO FUNCTION assembly (AWZ4541)
PJ101
TAPE2
REC
PLAY
TAPE1
REC
PLAY
L ch
CD
PHONO
PJ103
PHONO
CD
AWZ4383 ONLY
R ch
TAPE1
PLAY
REC
TAPE2
PLAY
REC
NJM4558DX
IC801
IC802
IC803
L CH
AUDIO INPUT
KPE7
CN11
L TUNER
G TUNER
R TUNER
D.G
L FUNC OUT
G
R FUNC OUT
To CONNECTION assembly J11
J40 AKT1024
G G G
To A/V FUNCTION assembly J40 (➡ P35)
J12 AKT1011
L
G
R
D.G
L
G
R
-12V
+12V
DT
CK
ST-1
ST-2
SOURCE
REC OUT
To A/V FUNCTION assembly J12 (➡ P36)

2.5 A/V FUNCTION ASSEMBLY


To AUDIO FUNCTION assembly J40 (➡ P33)
To AUDIO FUNCTION assembly J12 (➡ P34)
A/V FUNCTION assembly (AWZ4542)
SOURCE
REC OUT
L
C
R
A.C
D.C
-12V
+12V
DATA
CLOCK
ST-1
ST-2
CK
DT
7951-1
7951-2
V-MUTE
+12V VIDEO
VIDEO
ST-CXD
DT CXD
To CONNECTION assembly CN13
VCR2
VCR1
REC
PLAY
LD
TV
R CH
L CH
SG
LD
VCR 1
VCR 2
TV
only
MONI OUT
VCR 1 REC OUT
VCR 2 REC OUT
* : Not Connect

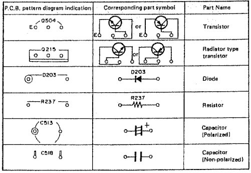
A/V FUNCTION assembly (AWZ4542)


VCR1
VCR2
TV
LD
PLAY
REC
PLAY
REC
MON.
PJ401
PJ402
PJ403
PJ404
PJ405
PJ406
PJ407
SG
V1
VIDEO INPUT
AWZ
IC861
IC651
CMK-140SX
J13
V2
VMUTE
A
B
C

This PCB connection diagram is viewd from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.



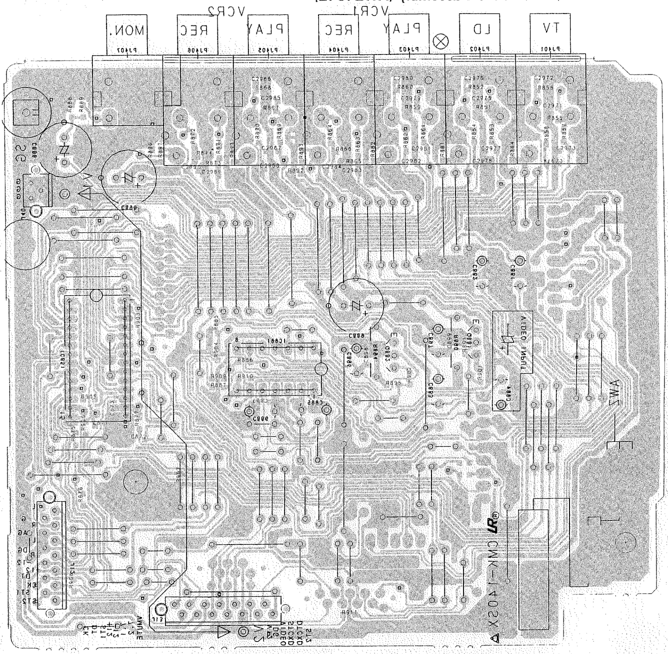
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E Q504	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

A/V FUNCTION assembly (AWZ4542)


VCR2
VCR1
MON.
REC
PLAY
REC
PLAY
LD
TV
PJ407
PJ406
PJ405
PJ404
PJ403
PJ402
PJ401
VIDEO INPUT
IC881
AWZ
AX504-1-KMC

This PCB connection diagram is viwed from the foil side.

3. ADJUSTMENTS

1. Wiring …… Connect the wires as shown in Fig. 3−1 (FM ANT. terminal : 75Ω).
2. Preset …… Set the VR451 to center position.

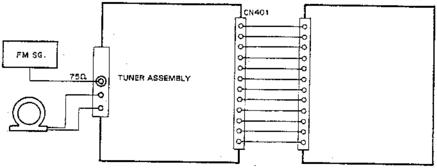


Fig. 3−1 AM and FM Adjustment Wiring Diagram

FM SECTION

Note : Stereo modulation Main 1kHz L+R ±68.25kHz
Pilot 19kHz±6.75kHz

Order		Item	SSG			Receiving frequency	Adjustment	
			Frequency	Modulation	Level		Adjustment location	Remarks
1		Checking front end VT	No signal			108MHz	—	Check that the voltage between terminal 41 and GND is 8.7±2.0V.
2		Checking front end VT				87.5MHz	—	Check that the voltage between terminal 41 and GND is 3.4±1.5V.
3	1	Increasing front end sensitivity	90MHz	1kHz ±75kHz dev.	30 to 40dB	90MHz	L902, L903, T901, T902 (AWB1004)	Adjustment until DC voltage between terminal 43 (S−METER) and GND is at maximum.
	2		106MHz			106MHz	TC901, T901, L903 (AWB1004)	
	3		90MHz			90MHz	L902 (AWB1004)	
	4		Repeat step 2 and 3 until the DC voltage between terminal 43 (S−METER) and GND is at maximum. Step 2 should always be the last step performed.					
4		Center adjustment	98MHz		60dBμV	98MHz	L431	Adjust the voltage between terminals 45 and 46 to 0±50mV.
5		Checking monophonic distortion	98MHz	1kHz ±75kHz dev.	60dBμV	98MHz	—	Check that the monophonic distortion is as specified.
6		Adjusting VCO		OFF	60dBμV		VR451	Adjust the output of terminal 44 to 76.0kHz±1.0kHz.
7		Adjusting stereo distortion	98MHz	L-ONLY R-ONLY	60dBμV	98MHz	T402 (AWB1004)	Minimize the distortion within 1/4 rotation of the core, and check conformity to the specification.

Order	Item	SSG			Receiving frequency	Adjustment	
		Frequency	Modulation	Level		Adjustment location	Remarks
8	Checking separation	98MHz	L-ONLY R-ONLY	60dBμV	98MHz	—	Check that the seperation of L → R and R → L is as specified.
9	Checking lighting levels of TUNED and STEREO IND.	98MHz	STEREO		98MHz	VR432	Adjust the TUNED and STEREO IND. to 10dBμV$^{+6}_{-4}$ dB.

AM SECTION

Order	Item	SSG			Receiving frequency	Adjustment	
		Frequency	Modulation	Level		Adjustment location	Remarks
1	Checking front end VT	No signal			1700kHz	—	Check that the voltage between terminal 41 and GND is 7.5±1.0V.
2	Checking front end VT				530kHz	—	Check that the voltage between terminal 41 and GND is 1.5±0.5V.
3	Checking front end sensitivity	999kHz	400Hz 30% MOD.	Practical sensitivity level	999kHz	—	Check that the practical sensitivity (maximum sensitivity) is as specified.
4	Adjusting lighting level of TUNED IND.	999kHz			999kHz	VR431	Adjust the lighting level of TUNED IND. to 55dBμV/m±3dB.

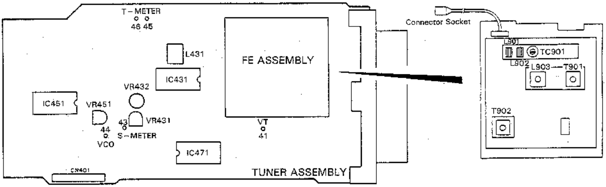
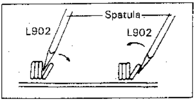

T-METER
46 45
L431
IC431
VR432
IC451
VR451
43
VR431
44
S-METER
VCO
IC471
CN401
FE ASSEMBLY
VT
41
TUNER ASSEMBLY
Connector Socket
L901
L902
TC901
L903
T901
T902

Fig. 3−2 Adjustment Points


Spatula
L902
L902

Use a spatula whose an edge is thin. The spatula is not metal (ex. Glass-Cloth Epoxy Resin).

To make the output maximum by opening and closing of the first right side turn the coil.

Fig. 3−3 Adjustment Tuning Coil L902

3. REGLAGES

1. Cablâge …… Brancher les câbles comme indiqué dans la Fig. 3−1 (Borne FM ANT. : 75Ω).
2. Préréglage …… Placer le VR451 dans la position.

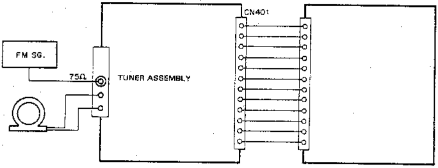


Fig. 3−1 Diagramme de Càblage de Réglage FM et AM

SECTION FM

Remarque : Modulation stéréo : Principal 1kHz D+G ±68,25kHz dev.
Pilote 19kHz ±6,75kHz dev.

Ordre		Article	SSG			Fréquence reçue	Réglage	
			Frequence	Modulation	Niveau		Emplacement du réglage	Observations
1		Vérification de la tension frontale	Pas de signal			108MHz	—	Vérifier que la tension entre la borne 41 et la masse est de 8,7±2,0V.
2		Vérification de la tension frontale				87.5MHz	—	Vérifier que la tension entre la borne 41 et la masse est de 3,4±1,5V.
3	1	Augmention de la sensibilité frontable	90MHz	Dév. de 1kHz ±75kHz	De 30 à 40dB	90MHz	L902, L903, T901, T902 (AWB1004)	Régler jusqu'à ce que la tension CC entre la borne 43 (S−METER) et la masse est au maximum.
	2		106MHz			106MHz	TC901, T901, L903 (AWB1004)	
	3		90MHz			90MHz	L902 (AWB1004)	
	4		Répéter les étapes 2 et 3 jusqu' ce que la tension CC entre la borne 43 (S−METER) et GND est au maximum. Il faudra toujours effectuer l'étape 2 en dernier.					
4		Réglage du centre	98MHz		60dBμV	98MHz	L431	Régler la tension entre les bornes 45 et 46 à 0±50mV.
5		Vérification de la distortion monophonique	98MHz	Dev. de 1kHz ±75kHz	60dBμV	98MHz	—	Vérifier que la distortion monophonique est comme spécifiée.
6		Réglage de l'oscillateur de régulation de tension		ARRET	60dBμV		VR451	Régler la sortie de la borne 44 à 76,0kHz±1,0kHz.
7		Réglage de la distortion stéréophonique	98MHz	D−Seulement G−Seulement	60dBμV	98MHz	T402 (AWB1004)	Minimiser la distortion en 1/4 de tour du noyau et vérifier la conformité avec la spécification.

Ordre	Article	SSG			Fréquence reçue	Réglage	
		Frequence	Modulation	Niveau		Emplacement du réglage	Obserrations
8	Vérification de la séparation	98MHz	D-Seulement G-Seulement	60dBμV	98MHz	—	Vérifier que la séparation de D → G et G → D est comme spécifiée.
9	Vérification des niveaux d'éclairage de TUNED et STEREO IND.	98MHz	STEREO		98MHz	VR432	Régler les niveaux d'éclairage de TUNED et STEREO IND. à 10dBμV$^{+4}_{-4}$dB.

SECTION AM

Ordre	Article	SSG			Fréquence reçue	Réglage	
		Frequence	Modulation	Niveau		Emplacement du réglage	Obserrations
1	Vérification de la tension frontale	Pas de signal			1700kHz	—	Vérifier que la tension entre la borne 41 et la masse est de 7,5±1,0V.
2	Vérification de la tension frontale				530kHz	—	Vérifier que la tension entre la borne 41 et la masse est de 1,5±0,5V.
3	Vérification de la sensibilité frontale	999kHz	400Hz 30% MOD.	Niveau de sensibilité réelle	999kHz	—	Vérifier que la sensibilité réelle (sensibilité maximum) est comme spécifiée.
4	Réglage du niveau d'éclairage de TUNED IND.	999kHz			999kHz	VR431	Régler le niveau d'éclairage de TUNED IND. à 55dBμV/m±3dB.

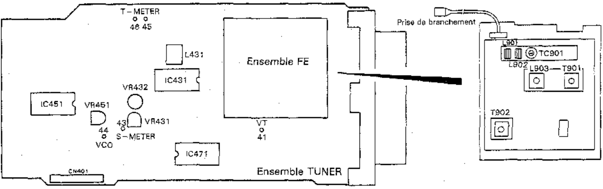
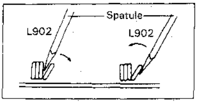

T-METER
46 45
L431
IC431
Ensemble FE
VR432
IC451
VR451
VR431
43
44
S-METER
VCO
VT
41
IC471
CN401
Ensemble TUNER
Prise de branchement
L901
TC901
L902
L903
T901
T902

Fig. 3-2 Points de Réglage


Spatule
L902
L902

Rendre la sortie maximum enécartant et ramenant la première boucle de droite de la bobine.

Fig. 3-3 Réglage de la Bobine de Syntonisation L902

Utiliser une spatule dont l'extrémité est mince. La spatule n'est pas métallique (ex. Résines époxydes en toile verrée).

SPATULE

3. AJUSTES

1. Cableado …… Conecte los cables como se muestra en la Fig. 3−1 (Terminal FM ANT. : 75Ω).
2. Preajuste …… Ajuste el VR451 a la posición central.

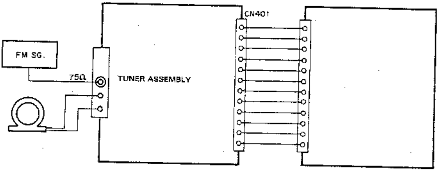


Fig. 3 − 1 Diagramma de Conexión de Ajuste de FM y AM

SECCIÓN DE FM

Nota : Modulación estereo : Principal 1kHz D+I ±68,25kHz dev.
Pilote 19kHz ±6,75kHz dev.

Orden		Item	SSG			Frecuencia de recepción	Ajuste	
			Frecuencia	Modulación	Nivel		Punto de ajuste	Observaciones
1		Verificación de VT de extremo delantero	Sin señal			108MHz	—	Verifique que la tensión entre el terminal 41 y la puesta a tierra sea de 8,7±2,0V.
2		Verificación de VT de extremo delantero				87.5MHz	—	Verifique que la tensión entre el terminal 41 y la puesta a tierra sea de 3,4±1,5V.
3	1	Aumentando la sensibilidad del extremo delantero	90MHz	1kHz ±75kHz de desv.	30 a 40dB	90MHz	L902, L903, T901, T902 (AWB1004)	Ajuste hasta que la tensión de CC entre el terminal 43 (S−METER) y la puesta a tierra se encuentre al máximo.
	2		106MHz			106MHz	TC901, T901, L903 (AWB1004)	
	3		90MHz			90MHz	L902 (AWB1004)	
	4		Repita los pasos 2 y 3 hasta que la tensión de CC entre el terminal 43 (S−METER) y GND se encuentre al máximo. El paso 2 debe ser siempre el último paso realizado.					
4		Ajuste central	98MHz		60dBμV	98MHz	L431	Ajuste la tension entre los terminales 45 y 48 a 0±50mV.
5		Verificación de distorsión monofónica	98MHz	1kHz ±75kHz de desv.	60dBμV	98MHz	—	Verifique que la distorsión monofónica sea la especificada.
6		Ajuste de VCC		DESACTIV	60dBμV		VR451	Ajuste la salida del terminal 44 a 76,0kHz±1,0kHz.
7		Ajuste de distorsión estereofónica	98MHz	D−Solamente I−Solamente	60dBμV	98MHz	T402 (AWB1004)	Minimice la distorsión dentro de 1/4 de distorsión del núcleo, y verifique conforme a la especificación.

Orden	Item	SSG			Frecuencia de recepción	Ajuste	
		Frecuencia	Modulación	Nivel		Punto de ajuste	Observaciones
8	Verificación de separación	98MHz	D-Solamente I-Solamente	60dBμV	98MHz	—	Verifique que la separación de D → I et I → D sea de acuerdo a la especificación.
9	Verificación de niveles de iluminación de TUNED y STEREO IND.	98MHz	ESTÉREO		98MHz	VR432	Ajuste el nivel de iluminación de TUNED y STEREO IND. a $10dB\mu V^{+5}_{-4}$ dB.

SECCIÓN DE AM

Orden	Item	SSG			Frecuencia de recepción	Ajuste	
		Frecuencia	Modulación	Nivel		Punto de ajuste	Observaciones
1	Verificación de VT de extremo delantero	Sin señal			1700kHz	—	Verifique que la tensión entre el terminal 41 y la puesta a tierra sea de 7,5±1,0V.
2	Verificación de VT de extremo delantero				530kHz	—	Verifique que la tensión entre el terminal 41 y la puesta a tierra sea de 1,5±0,5V.
3	Verificación de sensibilidad de exteremo delantero	999kHz	400Hz 30% de MOD.	Niveau de sensibilidad práctica	999kHz	—	Verifique que la sensibilidad práctica (sensibilidad máximam) sea la especificada.
4	Ajuste de niveles de iluminación de TUNED IND.	999kHz			999kHz	VR431	Ajuste el nivel de iluminación de TUNED IND. a 55dBμV/m±3dB.

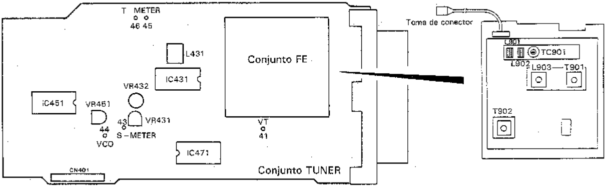
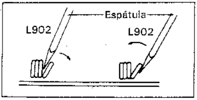

T METER
46 45
L431
Conjunto FE
IC431
VR432
IC451
VR451
43
VR431
44
S-METER
VCO
VT
41
IC471
CN401
Conjunto TUNER
Toma de conector
L901
TC901
L902
L903
T901
T902

Fig. 3−2 Puntos de Ajuste


Espátula
L902
L902

Utilice la espátula cuyo borde sea delgado.
La espátula no es metálica (ej. Resina epóxica para vidrio-paño).

ESPÁTULA

Para producir la máxima salida abriendo y cerrando de la primera espira del lado derecho de la bobina.

Fig. 3−3 Ajuste de la Bobina de Sintonixación L902

4.4 P. C. BOARD PATTERN

⊏⊐ : Indicates a chip resistor.

: Indicates a chip capacitor.

: Indicates a chip transistor.

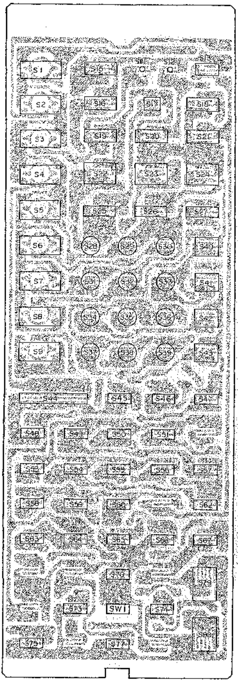
: Indicates a chip diode.

A

B

C

D


S1
S2
S3
S4
S5
S6
S7
S8
S9
S11
S12
S13
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S28
S29
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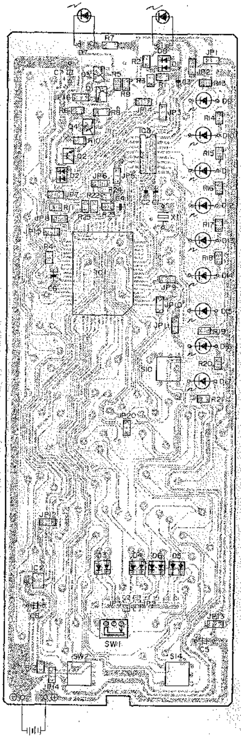
S55
S56
S57
S58
S59
S60
S62
S63
S64
S65
S66
S67
S70
S73
S74
S75
S77
S79
S80
SW1


R7
D7
D8
R2
R3
R1
R5
R9
Q3
D1
C7
C3
JP1
JR2
R13
D9
R14
D10
R15
D11
R16
D12
R17
D13
R18
D14
D15
R19
D16
R20
D17
R21
JP16
R6
R8
JP14
JP3
Q4
R10
Q2
D2
IC3
JP6
JP5
R24
JP7
R22
C4
C2
C1
R11
R25
R23
X1
JP8
JP15
R4
IC1
C6
JP9
JP10
JP11
S10
JP20
JP12
D3
D4
D6
D5
IC2
C8
JP2
JP13
C5
SW1
SW2
S14
R12
JP4

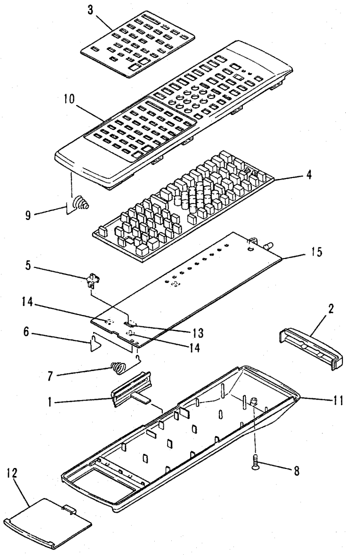
4. REMOTE CONTROL UNIT [CU-VSX051 (AXD1282)]

4.1 EXPLODED VIEW AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior

Mark	No.	Description	Parts No.
	1	MODE CHECK KEY	AZA1335
	2	FILTER	AZA1336
	3	PLATE	AZA1409
	4	RUBBER SHEET	AZA1364
	5	KNOB	AZA1349
	6	TERMINAL (+)	AZB1327
	7	TERMINAL (−)	AZB1328
	8	SCREW	AZB1329
	9	TERMINAL (C)	AZB1330
	10	CASE (A)	AZN2089
	11	CASE (B)	AZN2090
	12	BATTERY COVER	AZN2091
	13	SLIDE SW	AZS1117
	14	TACT SW	AZS1118
NSP	15	P. C. BOARD	AZW1130



4.2 PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

  $560\Omega \rightarrow 56 \times 10^1 \rightarrow 561$ .... RD1/8PM $\boxed{5}\,\boxed{6}\,\boxed{1}$ J
  $47k\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ .... RD1/4PS $\boxed{4}\,\boxed{7}\,\boxed{3}$ J
  $0.5\Omega \rightarrow$ 0R5 .... RN2H $\boxed{0}\,\boxed{R}\,\boxed{5}$ K
  $1\Omega \rightarrow$ 010 .... RS1P $\boxed{0}\,\boxed{1}\,\boxed{0}$ K

  Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

  $5.62k\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$ .... RN1/4PC $\boxed{5}\,\boxed{6}\,\boxed{2}\,\boxed{1}$ F

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1	μ-COM	ACM001-030
	IC2	IC	AZC1564
	IC3	LOGIC IC	MC74HC138F
	Q1, 2	CHIP TRANSISTOR	2SC3052E
	Q3, 4	TRANSISTOR	2SD1622
	D1-6	DIODE	DWA010-TE
	D10-17	LED	AZC1573
	D7	LED	SLR-938C
	D8	DIODE	SPS-503C-3
	D9	LED	AZC1573
CAPACITORS			
	C1, 2	CERAMIC CAPACITOR	CCDSL330J50
	C3	CERAMIC CAPACITOR	CCDSL221J50
	C4	CERAMIC CAPACITOR	CKDYX104M25
	C5	ELECT. CAPACITOR	CEAS470M10
	C6	CERAMIC CAPACITOR	CKDYB103K50
	C7	ELECT. CAPACITOR	CEAS221M10
	C8	ELECT. CAPACITOR	CEAS4R7M50
RESISTORS			
	R7, 8	CARBON FILM RESISTOR	RD1/4PMFL1R5J
		Other resistors	RD1/8PM□□□J
OTHERS			
	X1	RESONATOR	AZC1570

4.3 SCHEMATIC DIAGRAM

NOTE)

JP2 : The terminal for switching Fc (carrier frequency of the fixed code). This terminal is set at OPEN (Fc = 40kHz) when delivered. If a product of another manufacturer accidentally receives the PIONEER code, short the terminal so that Fc will be 36.7kHz. (In which case, the learned code and preset code do not change.)

JP3 : This remote control saves the learned data, timing data in ROM and other data (such as code data) in RAM. ROM already contains the timing data for other primary manufacturers. JP3 is a terminal for switching whether or not to use that pre-loaded timing data during learning.
This terminal is set at OPEN when delivered. If "data is learned but the product does not operate," there is the rare possibility that learned timing data is affected by the timing data for another primary manufacturer in ROM, causing the receiving product to be deactivated. In such a case, short JP3 to clear all the learned data and restart data learning, so that the data precision is increased. (In which case, the learned data in RAM is shared as is.)

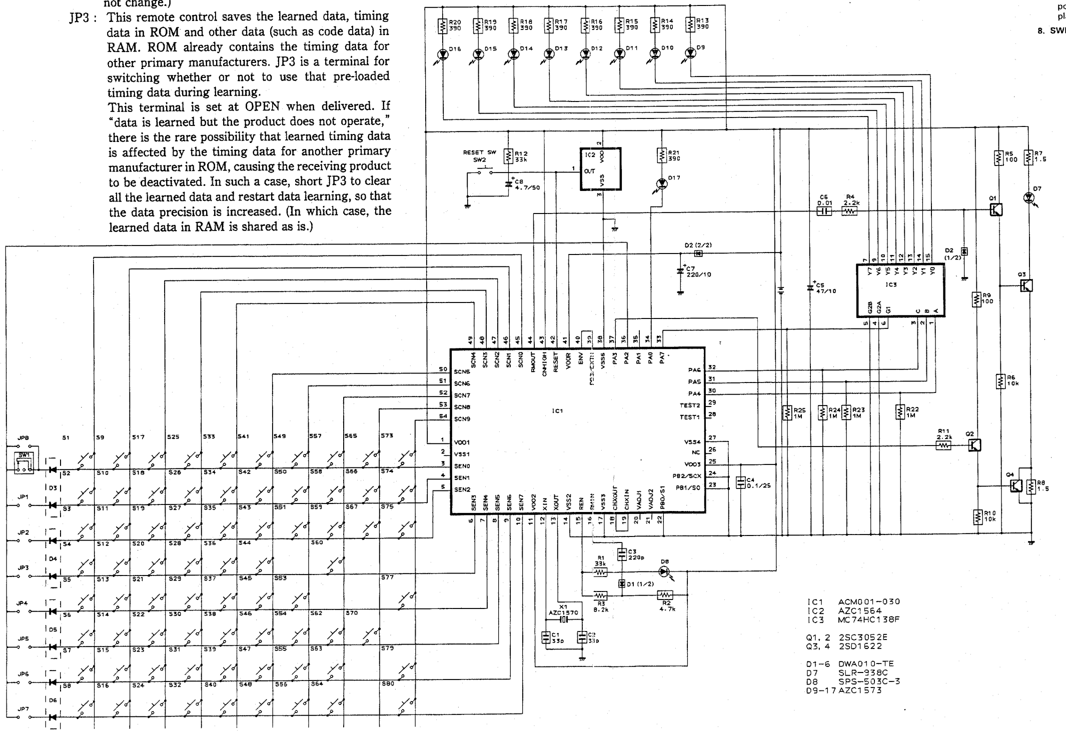
NOTE:

▭ : Indicates a chipresistor.
╪ : Indicates a chipcapacitor.
⊠ : Indicates a chiptransistor.
⧓ : Indicates a chipdiode.

Note: (Type 2)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ : DC voltage (V) at no input signal unless otherwise noted.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ : Adjusting point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

SW1 : CENT. ·BAL./REAR·REAR BAL.
SW2 : RESET
S1 : VCR1
S2 : VCR2
S3 : LD
S4 : TV
S5 : CD
S6 : TUNER
S7 : DECK I
S8 : DECK II
S9 : DAT
S10 : MODE CHECK
S11 : LEARN
S12 : EDIT
S13 : MULTI COMMAND
S14 : M.CLEAR
S15 : POWER
S16 : ⏮
S17 : REC
S18 : ⏭
S19 : ⏪
S20 : ◀ (SEARCH)
S21 : ⏩
S22 : ⏸
S23 : ■
S24 : ▶
S25 : TV/VCR (+10)
S26 : SELECT (DISP)
S27 : TV FUNC (BAND)
S28 : 1
S29 : 2
S30 : 3
S31 : 4
S32 : 5
S33 : 6
S34 : 7
S35 : 8
S36 : 9
S37 : 10/0
S38 : 11/PGM
S39 : 12/CLEAR
S40 : CUSTOM (TV VOL+)
S41 : SCAN (TV VOL−)
S42 : FREQ CH (Λ)
S43 : FREQ CH (V)
S44 : RECEIVER POWER
S45 : AUTO SOURCE CONTROL 1
S46 : AUTO SOURCE CONTROL 2
S47 : SLEEP
S48 : VCR1
S49 : VCR2
S50 : LD
S51 : TV
S53 : TAPE1/DAT
S54 : TAPE2/MONITOR
S55 : CD
S56 : TUNER
S57 : PHONO
S58 : SIMULATED STEREO
S59 : ACOUSTIC
S60 : V.SEL
S62 : RETURN
S63 : SURR MODE
S64 : 3CH LOGIC
S65 : CENTER MODE
S66 : TEST TONE
S67 : MUTING
S70 : CENTER +
S73 : REAR L
S74 : REAR R
S75 : DELAY TIME
S77 : CENTER −
S79 : MASTER VOLUME +
S80 : MASTER VOLUME −


R20 390
R19 390
R18 390
R17 390
R16 390
R15 390
R14 390
R13 390
D16
D15
D14
D13
D12
D11
D10
D9
RESET SW SW2
R12 33k
C8 4.7/50
IC2
VDD
OUT
VSS
R21 390
D17
C6 0.01
R4 2.2k
R5 100
R7 1.5
D7
Q1
D2 (1/2)
D2 (2/2)
C7 220/10
C5 47/10
IC3
Y7 Y6 Y5 Y4 Y3 Y2 Y1 Y0
G2B G2A G1 C B A
R9 100
Q3
R6 10k
IC1
SCN4 SCN3 SCN2 SCN1 SCN0 RMOUT CNHIGH RESET VDOR ENV P03/EXTI1 VSS5 PA3 PA2 PA1 PA0 PA7
SCN5 SCN6 SCN7 SCN8 SCN9 VDD1 VSS1 SEN0 SEN1 SEN2
PA6 PA5 PA4 TEST2 TEST1 VSS4 NC VDD3 PB2/SCX PB1/SO
SEN3 SEN4 SEN5 SEN6 SEN7 VDD2 XIN XOUT VSS2 REN RMIN VSS3 CHXOUT CHXIN VAOJ1 VAOJ2 PB0/SI
R25 1M
R24 1M
R23 1M
R22 1M
R11 2.2k
Q2
Q4
R8 1.5
R10 10k
C4 0.1/25
C3 220p
D8
R1 33k
D1 (1/2)
R3 8.2k
R2 4.7k
X1 AZC1570
C1 33p
C2 33p
SW1
JP8 JP1 JP2 JP3 JP4 JP5 JP6 JP7
D3 D4 D5 D6
S1 S9 S17 S25 S33 S41 S49 S57 S65 S73
S2 S10 S18 S26 S34 S42 S50 S58 S66 S74
S3 S11 S19 S27 S35 S43 S51 S59 S67 S75
S4 S12 S20 S28 S36 S44 S60
S5 S13 S21 S29 S37 S45 S53 S77
S6 S14 S22 S30 S38 S46 S54 S62 S70
S7 S15 S23 S31 S39 S47 S55 S63 S79
S8 S16 S24 S32 S40 S48 S56 S64 S80

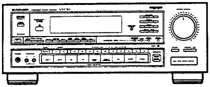
IC1 ACM001-030
IC2 AZC1564
IC3 MC74HC138F

Q1, 2 2SC3052E
Q3, 4 2SD1622

D1-6 DWA010-TE
D7 SLR-938C
D8 SPS-503C-3
D9-17 AZC1573

PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
ARP2558

AUDIO/VIDEO STEREO RECEIVER

VSX-501
VSX-511S
VSX-52

VSX-501, VSX-511S AND VSX-52 HAVE THE FOLLOWING :

Type	Model			Power Requirement	Remarks
	VSX-501	VSX-511S	VSX-52		
KU	○	○	○	AC120V only	
KC	—	○	—	AC120V only	
SD	○	—	—	AC110V, 120V-127V, 220V, 240V (Switchable)	

- This manual is applicable to the following : VSX-501/KU and SD ; VSX-511S/KU and KC ; VSX-52/KU.
- For the following : VSX-501/SD ; VSX-511S/KU and KC ; VSX-52/KU, refer to page 96.

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DFG JUNE 1992 Printed in Japan

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

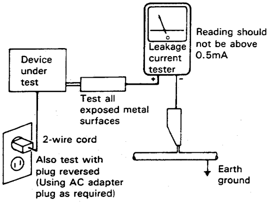
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Leakage current tester
Reading should not be above 0.5mA
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

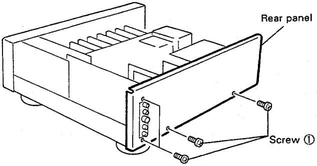
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

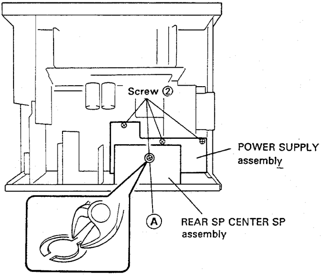
2. DISASSEMBLY

2.1 POWER SUPPLY ASSEMBLY

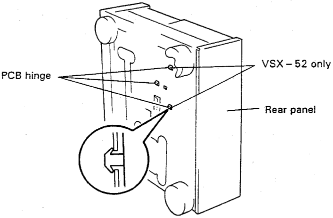
1. Remove the bonnet case (7 screws).
2. Remove the screws on the rear panel. (four screws ①).


Rear panel
Screw ①

3. Use nippers to cut at Ⓐ in the REAR SP CENTER SP assembly.
4. Remove the screws on the POWER SUPPLY assembly. (four screws ②)

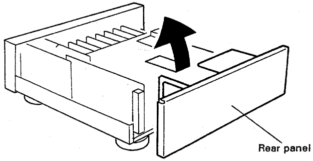

Screw ②
POWER SUPPLY assembly
Ⓐ
REAR SP CENTER SP assembly

5. Stand the unit upright, and use fine-nosed pliers to press in the PCB hinge on the rear panel.


PCB hinge
VSX – 52 only
Rear panel

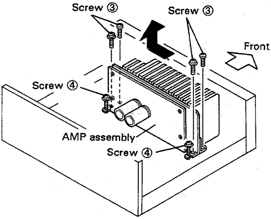
> *Note :*
> ***Avoid shorting the unit by using an insulation sheet or similar between transformer TP and other assemblies when positioning the unit securely.***

6. Return the unit to its original position. Pull the rear panel toward the operator and securely place it so that the side with the POWER SUPPLY assembly buttons are visible.

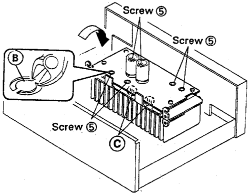


2.2 AMP ASSEMBLY

1. Remove the four heat sink locking screws ③ and loosen the two regular screws④.
2. Cut the binder with nippers.


Screw ③
Screw ③
Front
Screw ④
AMP assembly
Screw ④

3. Cut the AMP assembly at Ⓑ with nippers and then remove the six screws ⑤.
4. Remove the transistor solder at Ⓒ (two locations).


Screw ⑤
Screw ⑤
Ⓑ
Screw ⑤
Ⓒ

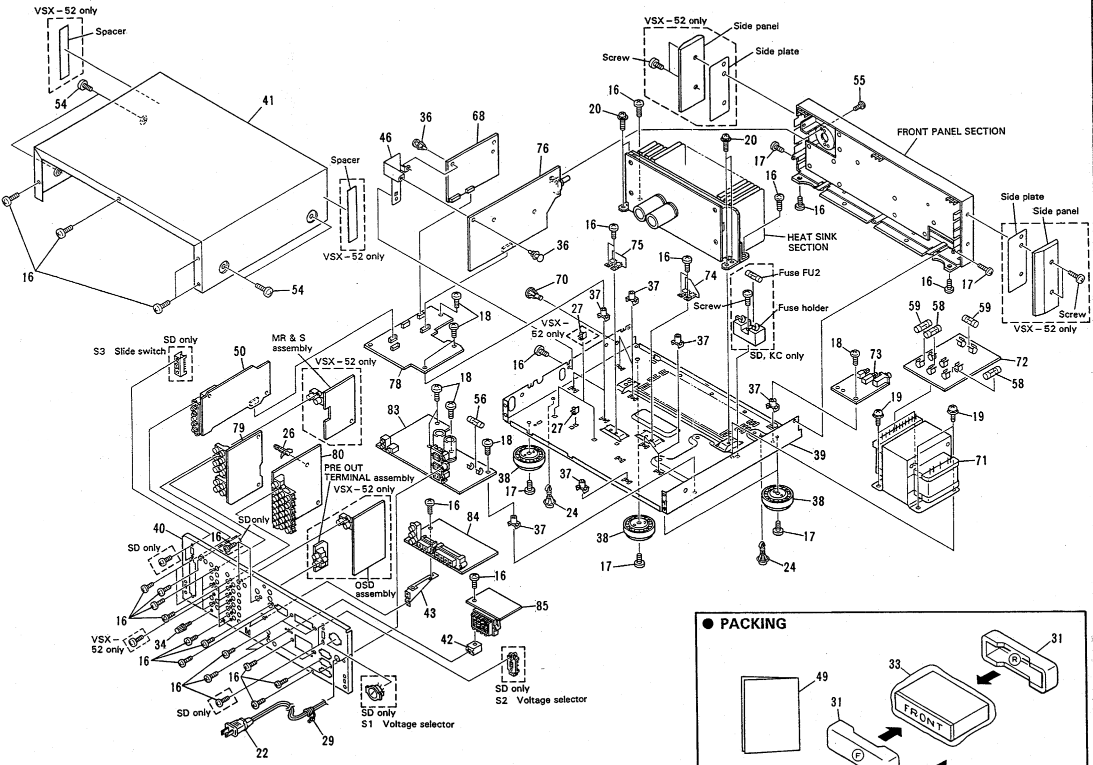
3. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior and Packing

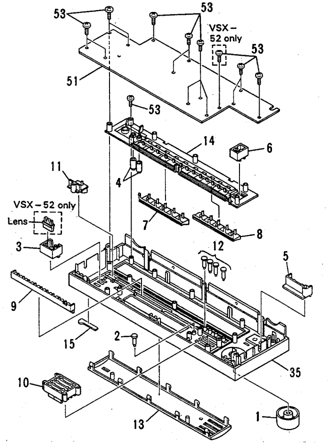
Mark	No.	Description	Parts No.
	1	MASTER VOL ASSY	AAB1207
	2	KIN BUTTON	AAD1609
	3	M&S KNOB	AAD1997
	4	SP BUTTON (PLS)	AAD2211
	5	MUTE BUTTON (PLS)	AAD2264
	6	ACOUSTIC BUTTON (PLS)	AAD2265
	7	FUNCTION BUTTON L	AAD2268
	8	FUNCTION BUTTON R	AAD2269
	9	TX FUNCTION BUTTON	AAD2270
	10	BUTTON (PLS)	AAD2279
	11	POWER BUTTON (PLS)	AAD2272
	12	KURO BUTTON	AAD2274
	13	DISPLAY PANEL	AAK2324
	14	SASH (PLS)	AAK2298
	15	NAME PLATE (METAL)	AAM1029
	16	SCREW	ABA-298
	17	SCREW (STEEL)	ABA1009
	18	SCREW	ABA1018
	19	SCREW (STEEL)	ABA1053
	20	SCREW	ABA1054
	21	SCREW	ABA1082
⚠	22	AC POWER CORD	ADG1058
	23	FM ANTENNA	ADH1004
NSP	24	PCB HOLDER	AEC1097
	25	MICA SHEET	AEC1140
NSP	26	PCB SUPPORT	AEC1215
NSP	27	PCB HINGE	AEC1407
	28	MICA SHEET	AEE1014
⚠	29	STRAIN RELIEF	AEP-113
NSP	30	BATTERY (R03, AAA)	AEX-021
	31	FRONT REAR PAD	AHA1503
	32	PACKING CASE	AHD2285
	33	PACKING SHEET	AHG1021
NSP	34	TERMINAL SCREW	AKE-031
	35	FRONT PANEL	AMB1987
	36	RIVET (PLASTIC)	AMR1066
NSP	37	PCB MOULD	AMR1525
	38	FOOT	AMR2414
NSP	39	CHASSIS	ANA1178
NSP	40	REAR PANEL	ANC1893
	41	METAL BONNET (MTL)	ANE1374
NSP	42	PCB HOLDER	ANG-502
NSP	43	PCB HOLDER A	ANG-516
NSP	44	SUB TRANS HOLDER	ANG1393
NSP	45	POWER ASSEMBLY HOLDER -F	ANG1575
NSP	46	PCB HOLDER	ANG1670
NSP	47	POWER ASSEMBLY HOLDER -R	ANG1683
NSP	48	HEAT SINK	ANH1398
	49	OPE. INSTRUCTIONS (ENGLISH)	ARB1378
◉	50	TUNER ASSEMBLY	AWE1140
◉	51	FL. U-COM ASSY	AWK1556
	52	REMOTE CONTROL UNIT (CU-VSX046)	AXD1263
	53	SCREW	BPZ26P080FMC
	54	SCREW	FBT40P060FZK
	55	SCREW	VMZ30P060FCU
⚠	56	FUSE (8A, FU1)	AEK1002
	57	....	
⚠	58	FUSE (4A, FU3, 4)	AEK-125
⚠	59	FUSE (1.25A, FU5, 6)	AEK-120
	60	LOOP ANTENNA (L)	ATB1005
⚠	61	TRANSISTOR (Q1)	2SC3281
⚠	62	POWER TRANSISTOR (Q10)	2SA1803
⚠	63	TRANSISTOR (Q2)	2SC3281
⚠	64	TRANSISTOR (Q3)	2SA1302
⚠	65	TRANSISTOR (Q4)	2SA1302
⚠	66	TRANSISTOR (Q5)	2SC3182N
⚠	67	TRANSISTOR (Q6)	2SA1265N
	68	DOL. PRO. MOD ASSEMBLY	AXQ1009
⚠	69	POWER TRANSISTOR (Q8)	2SC4688
NSP	70	PCB SPACER	AEC1072
⚠	71	POWER TRANSFORMER (T1)	ATS1424
NSP	72	TRANS TERMINAL ASSEMBLY	AWZ4268
◉	73	SP SW ASSEMBLY	AWZ4262
◉	74	REG (5.6V) ASSEMBLY	AWZ4267
◉	75	REG (12V) ASSEMBLY	AWZ4266
◉	76	VOLUME ASSEMBLY	AWZ4269
	77	....	
◉	78	CONNECTION ASSEMBLY	AWZ4265
◉	79	AUDIO FUNCTION ASSEMBLY	AWZ4263
◉	80	A/V FUNCTION ASSEMBLY	AWZ4264
	81	....	
	82	....	
◉	83	POWER SUPPLY ASSEMBLY	AWZ4255
◉	84	REAR SP CENTER SP ASSEMBLY	AWZ4256
NSP	85	FRONT SP ASSEMBLY	AWZ4257
◉	86	AMP ASSEMBLY	AWZ4254
NSP	87	PCB HOLDER	ANG1726
	88	BATTERY COVER	PZN1001

● EXTERIOR

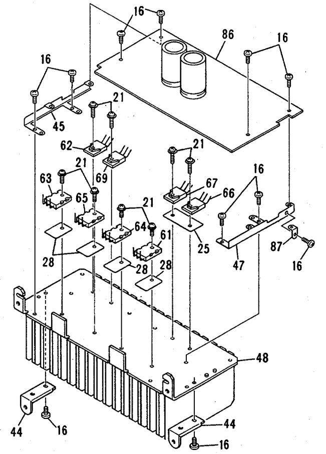

VSX – 52 only
Spacer
54
41
16
Spacer
VSX – 52 only
54
46
36
68
76
36
Screw
VSX – 52 only
Side panel
Side plate
16
20
20
17
16
16
55
FRONT PANEL SECTION
HEAT SINK SECTION
16
75
16
74
Fuse FU2
Screw
Fuse holder
SD, KC only
16
17
Side plate
Side panel
Screw
VSX – 52 only
59
58
59
72
58
18
73
19
19
71
37
37
27
VSX – 52 only
37
16
78
18
18
56
83
18
38
17
24
27
37
39
38
17
24
38
17
37
84
16
16
85
43
42
SD only
S2 Voltage selector
SD only
S1 Voltage selector
22
29
16
SD only
VSX – 52 only
34
40
SD only
SDonly
79
26
80
PRE OUT TERMINAL assembly
VSX – 52 only
OSD assembly
50
MR & S assembly
VSX – 52 only
SD only
S3 Slide switch

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

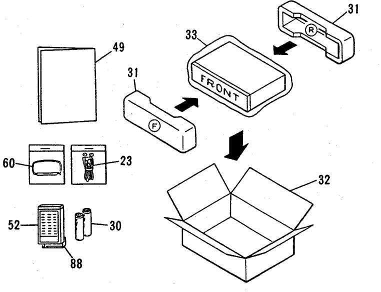
FRONT PANEL SECTION


53
53
VSX – 52 only
53
51
53
14
6
11
4
VSX – 52 only
Lens
7
8
3
12
5
9
15
2
35
10
13
1

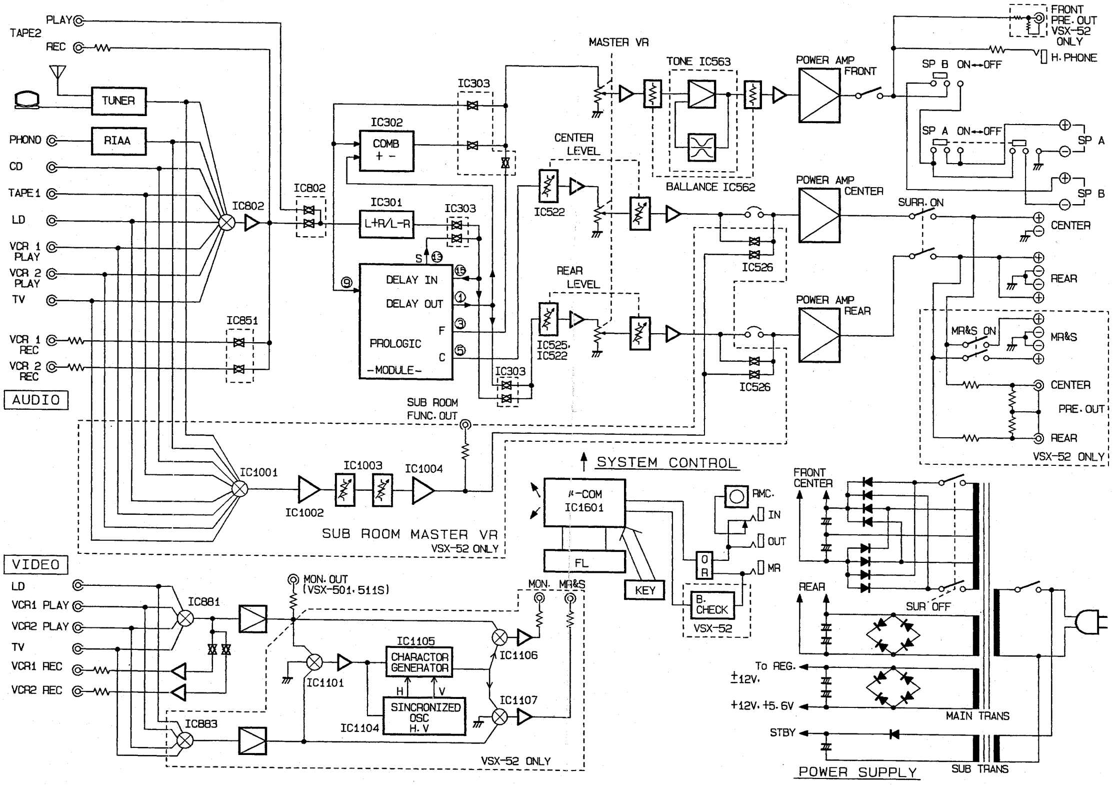
HEAT SINK SECTION


16
86
16
16
45
21
62
21
69
63
65
21
64
61
21
67
66
16
25
47
87
16
28
28
28
48
44
16
44
16

● PACKING


49
31
R
33
FRONT
31
F
60
23
32
52
30
88

4. BLOCK DIAGRAM


TAPE2
PLAY
REC
TUNER
PHONO
RIAA
CD
TAPE1
LD
VCR 1 PLAY
VCR 2 PLAY
TV
VCR 1 REC
VCR 2 REC
AUDIO
IC802
IC851
IC302
COMB + -
IC301
L+R/L-R
IC303
S
⑬
⑮
⑨
DELAY IN
DELAY OUT
①
F
③
C
⑤
PROLOGIC
-MODULE-
MASTER VR
CENTER LEVEL
IC522
REAR LEVEL
IC525, IC522
TONE IC563
BALLANCE IC562
POWER AMP FRONT
POWER AMP CENTER
POWER AMP REAR
IC526
FRONT PRE. OUT VSX-52 ONLY
H. PHONE
SP B ON↔OFF
SP A ON↔OFF
SP A
SP B
SURR. ON
CENTER
REAR
MR&S ON
MR&S
CENTER
PRE. OUT
REAR
VSX-52 ONLY
SUB ROOM FUNC. OUT
IC1001
IC1002
IC1003
IC1004
SUB ROOM MASTER VR
VSX-52 ONLY
SYSTEM CONTROL
μ-COM IC1601
FL
KEY
RMC.
IN
OUT
MR
O R
B. CHECK
VSX-52
VIDEO
LD
VCR1 PLAY
VCR2 PLAY
TV
VCR1 REC
VCR2 REC
IC881
IC883
MON. OUT (VSX-501, 511S)
IC1101
IC1105
CHARACTOR GENERATOR
H
V
SINCRONIZED OSC H. V
IC1104
IC1106
IC1107
MON.
MR&S
VSX-52 ONLY
FRONT CENTER
REAR
SUR OFF
To REG.
±12V.
+12V, +5. 6V
STBY
MAIN TRANS
SUB TRANS
POWER SUPPLY

5. SCHEMATIC AND PCB CONNECTIONS DIAGRAMS

5.1 OVERALL SCHEMATIC DIAGRAM

Note: (Type 1)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭V : Signal voltage at rated output.
   ▭ : DC voltage (V) at no input signal unless otherwise noted. Value in ( ) is DC voltage at rated power.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ➡ : Signal route.
   - ⊘ : Adjusting point.
   - ▼ (Red) : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

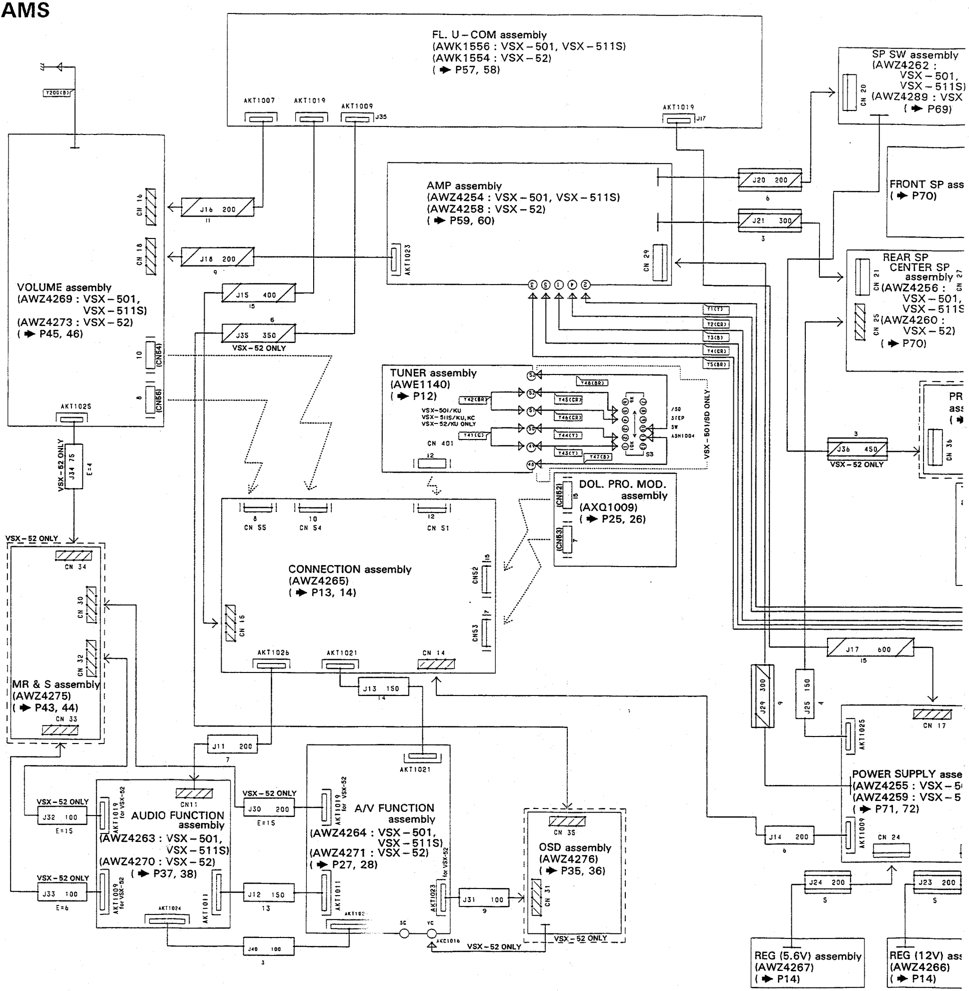
S1	LINE VOLTAGE SELECTOR (VSX−501/SD ONLY) AC110V/120−127V/220V/240V
S2	LINE VOLTAGE SELECTOR (VSX−501/SD ONLY) AC110−127V/220−240V
S3	CH. STEP (VSX−501/SD ONLY) 9kHz − 10kHz

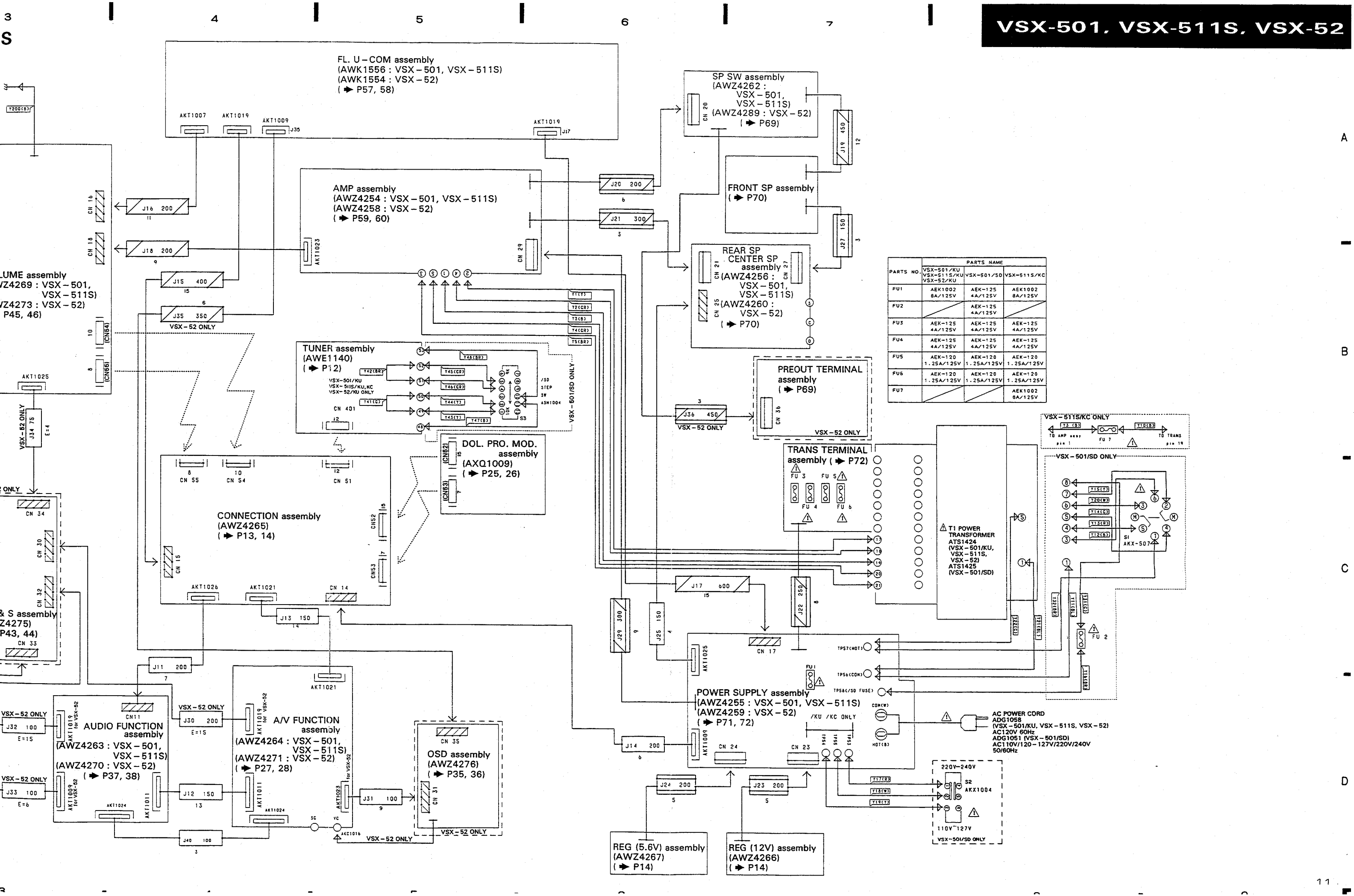
FL. U−COM assembly

S601	SIMULATED STEREO
S602	OSD SELECT (VSX−52 ONLY)
S603	POWER
S604	ASC MEMORY
S605	SIMULATED SURR.
S606	VIDEO SELECTOR
S607	BAND
S608	ASC 1
S609	STUDIO
S610	MR & S (VSX−52 ONLY)
S611	TUNING DOWN
S612	ASC 2
S613	EFECT DOWN
S614	VCR 1
S615	TUNING UP
S616	MEMORY
S617	BASS DOWN
S618	VCR 2
S619	1
S620	CUSTOM SELECT
S621	TREBLE DOWN
S622	LD
S623	2
S624	SCAN
S625	PROLOGIC
S626	TV
S627	3
S628	AUTO MONO
S629	BALANCE LCH
S631	4
S632	AUTO MANUAL
S633	EFECT UP
S634	TAPE 1/DAT
S635	5
S636	DIRECT ACCESS
S637	BASS UP
S638	TAPE 2/MONITOR
S639	6
S640	HITS
S641	3CH LOGIC
S642	CD
S643	7
S645	TREBLE UP
S646	TUNER
S647	8
S649	BALANCE RCH
S650	PHONO
S651	9
S653	RETURN
S654	ACOUSTIC SELECT
S655	0
S657	MUTING
S658	ACOUSTIC MEMORY
S659	RESET

SP SW assembly

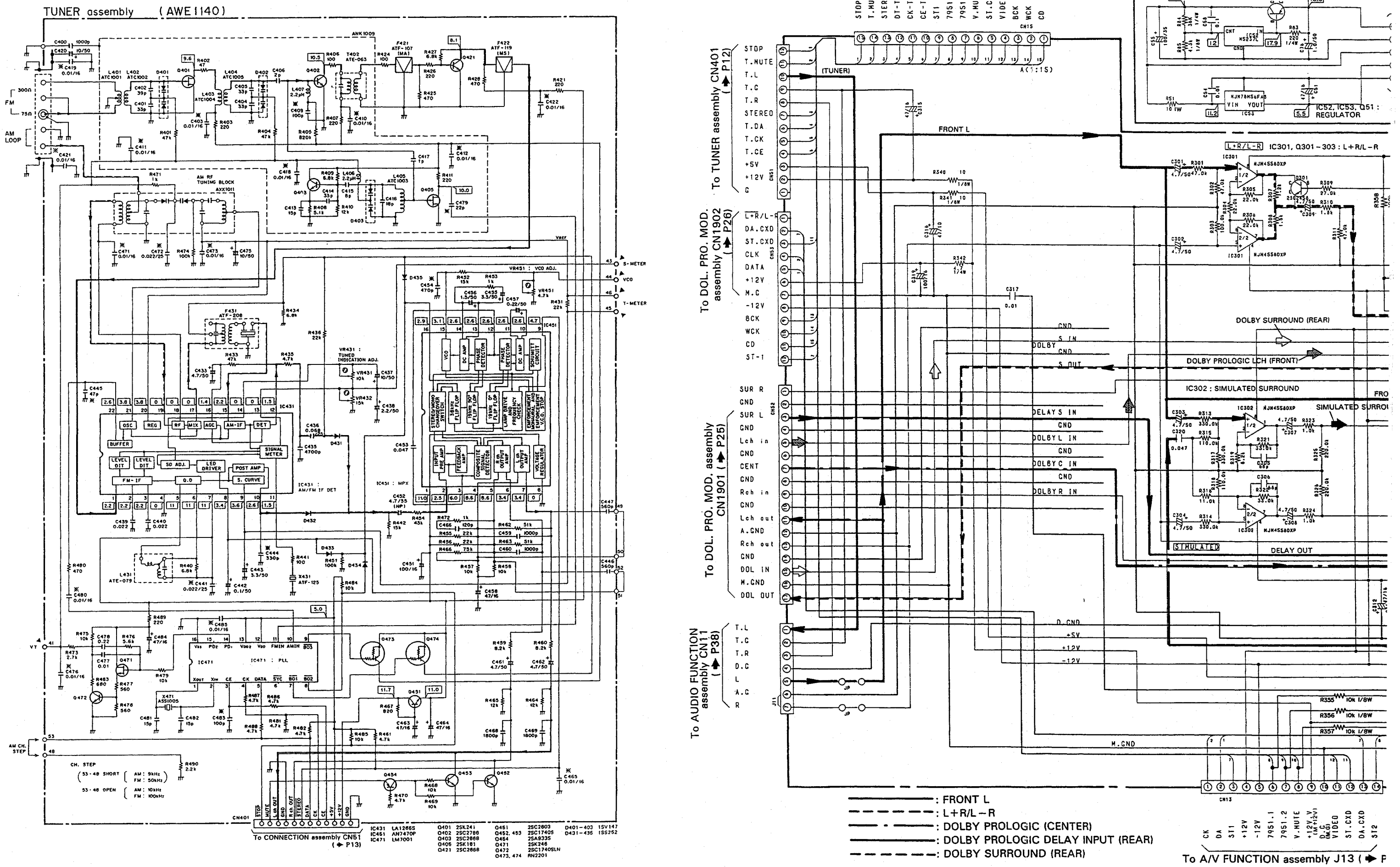
S251	SP−A ON/OFF SP−B ON/OFF


FL. U−COM assembly
(AWK1556 : VSX−501, VSX−511S)
(AWK1554 : VSX−52)
(➡ P57, 58)
AKT1007
AKT1019
AKT1009
J35
AKT1019
J17
SP SW assembly
(AWZ4262 : VSX−501, VSX−511S)
(AWZ4289 : VSX
(➡ P69)
CN 20
AMP assembly
(AWZ4254 : VSX−501, VSX−511S)
(AWZ4258 : VSX−52)
(➡ P59, 60)
AKT1023
CN 29
FRONT SP ass
(➡ P70)
J20 200
6
J21 300
3
REAR SP
CENTER SP
assembly
(AWZ4256 : VSX−501, VSX−511S
(AWZ4260 : VSX−52)
(➡ P70)
CN 21
CN 25
CN 27
Y200(B)
J16 200
11
J18 200
9
CN 16
CN 18
J15 400
15
J35 350
6
VSX−52 ONLY
VOLUME assembly
(AWZ4269 : VSX−501, VSX−511S)
(AWZ4273 : VSX−52)
(➡ P45, 46)
10
(CN54)
8
(CN56)
AKT1025
Y1(Y)
Y2(GR)
Y3(B)
Y4(GR)
Y5(BR)
TUNER assembly
(AWE1140)
(➡ P12)
Y42(BR)
Y41(G)
VSX−501/KU
VSX−511S/KU, KC
VSX−52/KU ONLY
CN 401
12
Y48(BR)
Y45(GR)
Y46(GR)
Y44(Y)
Y43(Y)
Y47(B)
9K
10K
S3
/SD
STEP
SW
ASH1004
VSX−501/SD ONLY
PR
ass
J36 450
3
VSX−52 ONLY
CN 36
VSX−52 ONLY
J34 75
E=4
DOL. PRO. MOD. assembly
(AXQ1009)
(➡ P25, 26)
(CN52)
15
(CN53)
7
VSX−52 ONLY
CN 34
CN 30
CN 32
MR & S assembly
(AWZ4275)
(➡ P43, 44)
CN 33
8
CN 55
10
CN 54
12
CN 51
CONNECTION assembly
(AWZ4265)
(➡ P13, 14)
CN52
15
CN53
7
CN 15
AKT1026
AKT1021
CN 14
J13 150
14
J17 600
15
J29 300
9
J25 150
4
CN 17
AKT1025
POWER SUPPLY asse
(AWZ4255 : VSX−5
(AWZ4259 : VSX−5
(➡ P71, 72)
AKT1009
CN 24
J14 200
6
J11 200
7
VSX−52 ONLY
J32 100
E=15
CN11
AUDIO FUNCTION assembly
(AWZ4263 : VSX−501, VSX−511S)
(AWZ4270 : VSX−52)
(➡ P37, 38)
AKT1019 for VSX−52
AKT1009 for VSX−52
AKT1011
AKT1024
VSX−52 ONLY
J33 100
E=6
VSX−52 ONLY
J30 200
E=15
J12 150
13
A/V FUNCTION assembly
(AWZ4264 : VSX−501, VSX−511S)
(AWZ4271 : VSX−52)
(➡ P27, 28)
AKT1021
AKT1019 for VSX−52
AKT1011
AKT1023 for VSX−52
AKT102
SC
VC
AKC1016
J40 100
3
J31 100
9
OSD assembly
(AWZ4276)
(➡ P35, 36)
CN 35
CN 31
VSX−52 ONLY
VSX−52 ONLY
J24 200
5
J23 200
5
REG (5.6V) assembly
(AWZ4267)
(➡ P14)
REG (12V) ass
(AWZ4266)
(➡ P14)

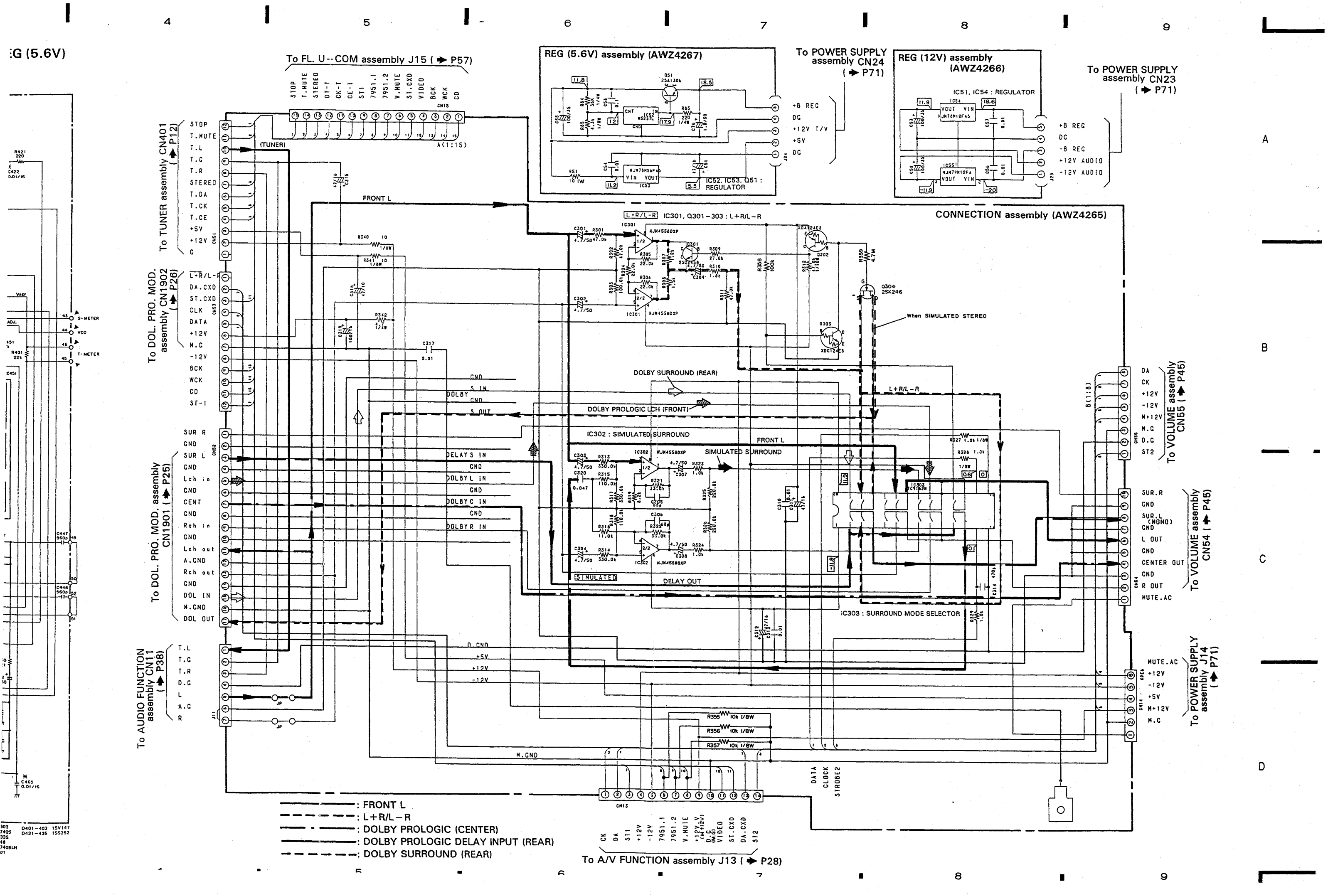

FL. U-COM assembly
(AWK1556 : VSX-501, VSX-511S)
(AWK1554 : VSX-52)
(➡ P57, 58)
AKT1007
AKT1019
AKT1009
J35
J17
SP SW assembly
(AWZ4262 :
VSX-501,
VSX-511S)
(AWZ4289 : VSX-52)
(➡ P69)
CN 20
J19 450
FRONT SP assembly
(➡ P70)
J27 150
AMP assembly
(AWZ4254 : VSX-501, VSX-511S)
(AWZ4258 : VSX-52)
(➡ P59, 60)
AKT1023
CN 29
J20 200
J21 300
J16 200
J18 200
J15 400
J35 350
VSX-52 ONLY
CN 16
CN 18
CN64
CN66
AKT1025
J34 75
E=4
VSX-52 ONLY
LUME assembly
Z4269 : VSX-501,
VSX-511S)
Z4273 : VSX-52)
P45, 46)
REAR SP
CENTER SP
assembly
(AWZ4256 :
VSX-501,
VSX-511S)
(AWZ4260 :
VSX-52)
(➡ P70)
CN 21
CN 27
CN 25
TUNER assembly
(AWE1140)
(➡ P12)
VSX-501/KU
VSX-511S/KU,KC
VSX-52/KU ONLY
CN 401
J2
/SD
STEP
SW
ASH1004
S3
VSX-501/SD ONLY
PREOUT TERMINAL
assembly
(➡ P69)
CN 36
VSX-52 ONLY
J36 450
VSX-52 ONLY
DOL. PRO. MOD.
assembly
(AXQ1009)
(➡ P25, 26)
CN52
CN53
CONNECTION assembly
(AWZ4265)
(➡ P13, 14)
CN 55
CN 54
CN 51
CN 15
CN52
CN53
AKT1026
AKT1021
CN 14
J13 150
TRANS TERMINAL
assembly (➡ P72)
FU 3
FU 5
FU 4
FU 6
T1 POWER
TRANSFORMER
ATS1424
(VSX-501/KU,
VSX-511S,
VSX-52)
ATS1425
(VSX-501/SD)
VSX-511S/KC ONLY
TO AMP assy
pin 1
FU 7
TO TRANS
pin 19
VSX-501/SD ONLY
S1
AKX-507
FU 2
J17 600
J22 250
J29 300
J25 150
CN 34
CN 30
CN 32
& S assembly
Z4275)
P43, 44)
CN 33
J11 200
VSX-52 ONLY
J32 100
E=15
VSX-52 ONLY
J33 100
E=6
AUDIO FUNCTION
assembly
(AWZ4263 : VSX-501,
VSX-511S)
(AWZ4270 : VSX-52)
(➡ P37, 38)
CN11
AKT1019 for VSX-52
AKT1009 for VSX-52
AKT1024
AKT1011
VSX-52 ONLY
J30 200
E=15
J12 150
A/V FUNCTION
assembly
(AWZ4264 : VSX-501,
VSX-511S)
(AWZ4271 : VSX-52)
(➡ P27, 28)
AKT1021
AKT1019 for VSX-52
AKT1011
AKT1024
AKT1023 for VSX-52
SC
VC
AKC1016
VSX-52 ONLY
J40 100
J31 100
OSD assembly
(AWZ4276)
(➡ P35, 36)
CN 35
CN 31
VSX-52 ONLY
POWER SUPPLY assembly
(AWZ4255 : VSX-501, VSX-511S)
(AWZ4259 : VSX-52)
(➡ P71, 72)
/KU /KC ONLY
CN 17
AKT1025
AKT1009
FU1
TP57(HOT)
TP56(COM)
TP58(/SD FUSE)
COM(W)
HOT(B)
CN 24
CN 23
J14 200
AC POWER CORD
ADG1058
(VSX-501/KU, VSX-511S, VSX-52)
AC120V 60Hz
ADG1051 (VSX-501/SD)
AC110V/120-127V/220V/240V
50/60Hz
220V-240V
S2
AKX1004
110V-127V
VSX-501/SD ONLY
J24 200
J23 200
REG (5.6V) assembly
(AWZ4267)
(➡ P14)
REG (12V) assembly
(AWZ4266)
(➡ P14)

PARTS NO.	PARTS NAME		
	VSX-501/KU VSX-511S/KU VSX-52/KU	VSX-501/SD	VSX-511S/KC
FU1	AEK1002 8A/125V	AEK-125 4A/125V	AEK1002 8A/125V
FU2		AEK-125 4A/125V	
FU3	AEK-125 4A/125V	AEK-125 4A/125V	AEK-125 4A/125V
FU4	AEK-125 4A/125V	AEK-125 4A/125V	AEK-125 4A/125V
FU5	AEK-120 1.25A/125V	AEK-120 1.25A/125V	AEK-120 1.25A/125V
FU6	AEK-120 1.25A/125V	AEK-120 1.25A/125V	AEK-120 1.25A/125V
FU7			AEK1002 8A/125V

5.2 TUNER ASSEMBLY, CONNECTION ASSEMBLY, REG (12V) ASSEMBLY AND REG (5.6V) ASSEMBLY

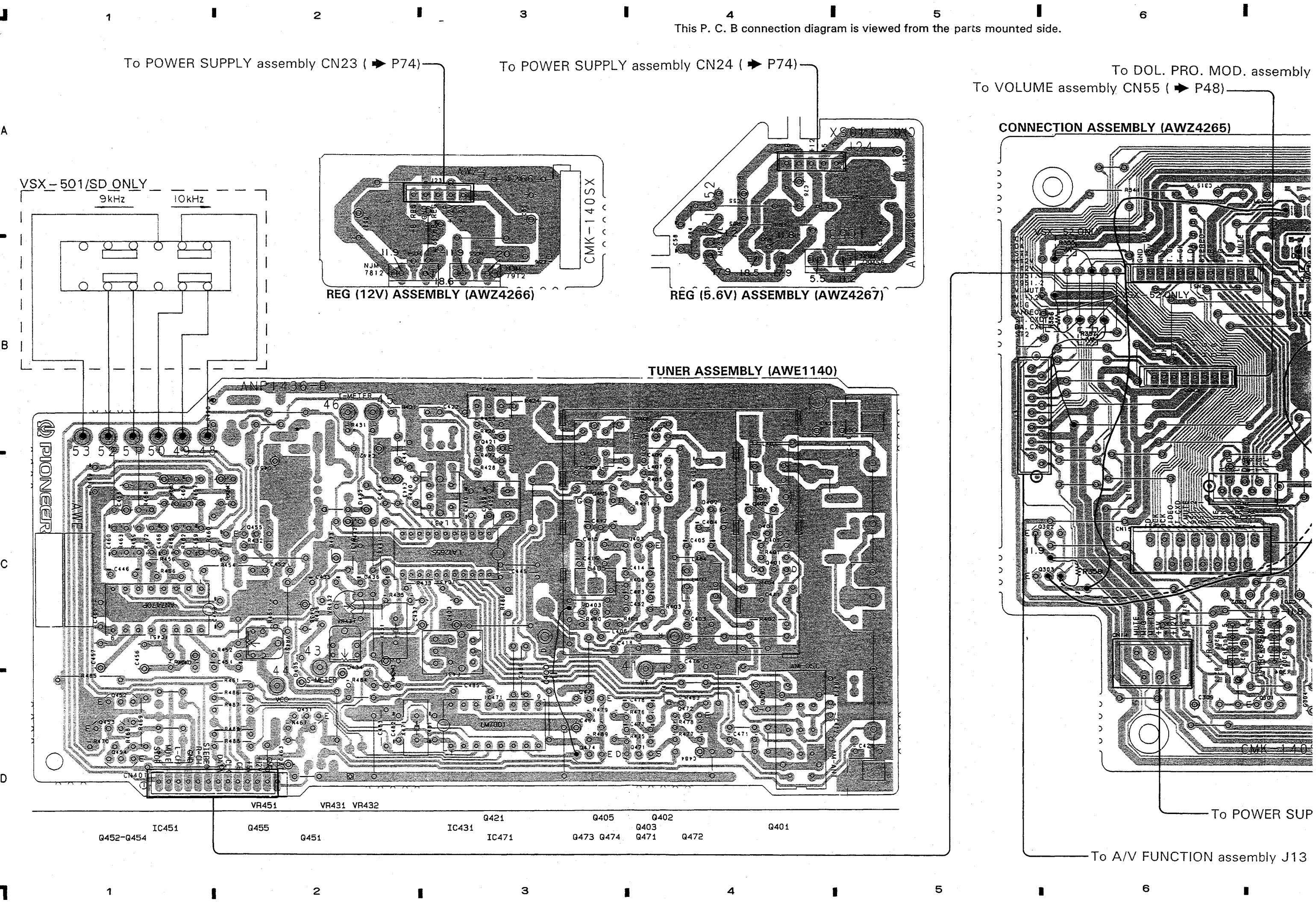

TUNER assembly (AWE1140)
ANK1009
AM RF TUNING BLOCK AXX1011
FM 300Ω 75Ω
AM LOOP
IC431 : AM/FM IF DET
IC451 : MPX
IC471 : PLL
VR451 : VCO ADJ.
VR431 : TUNED INDICATION ADJ.
S-METER
VCO
T-METER
VT
AM CH. STEP
CH. STEP
53-48 SHORT (AM : 9kHz FM : 50kHz)
53-48 OPEN (AM : 10kHz FM : 100kHz)
CN401
To CONNECTION assembly CN51 (➜ P13)
IC431 LA1266S
IC451 AN7470P
IC471 LM7001
Q401 2SK241
Q402 2SC2786
Q403 2SC2668
Q405 2SK161
Q421 2SC2668
Q451 2SC2603
Q452, 453 2SC1740S
Q454 2SA933S
Q471 2SK246
Q472 2SC1740SLN
Q473, 474 RN2201
D401-403 1SV147
D431-435 1SS252
To FL. U-COM assembly J15 (➜ P57)
(TUNER)
To TUNER assembly CN401 (➜ P12)
To DOL. PRO. MOD. assembly CN1902 (➜ P26)
To DOL. PRO. MOD. assembly CN1901 (➜ P25)
To AUDIO FUNCTION assembly CN11 (➜ P38)
REG (5.6V) assembly (AWZ4267)
IC52, IC53, Q51 : REGULATOR
FRONT L
IC301, Q301~303 : L+R/L−R
DOLBY SURROUND (REAR)
DOLBY PROLOGIC LCH (FRONT)
IC302 : SIMULATED SURROUND
SIMULATED SURROUND
SIMULATED
DELAY OUT
To A/V FUNCTION assembly J13 (➜ P

———————— : FRONT L
— — — — — : L+R/L−R
— — - — — : DOLBY PROLOGIC (CENTER)
━━━━━━━━ : DOLBY PROLOGIC DELAY INPUT (REAR)
━ ━ ━ ━ ━ : DOLBY SURROUND (REAR)

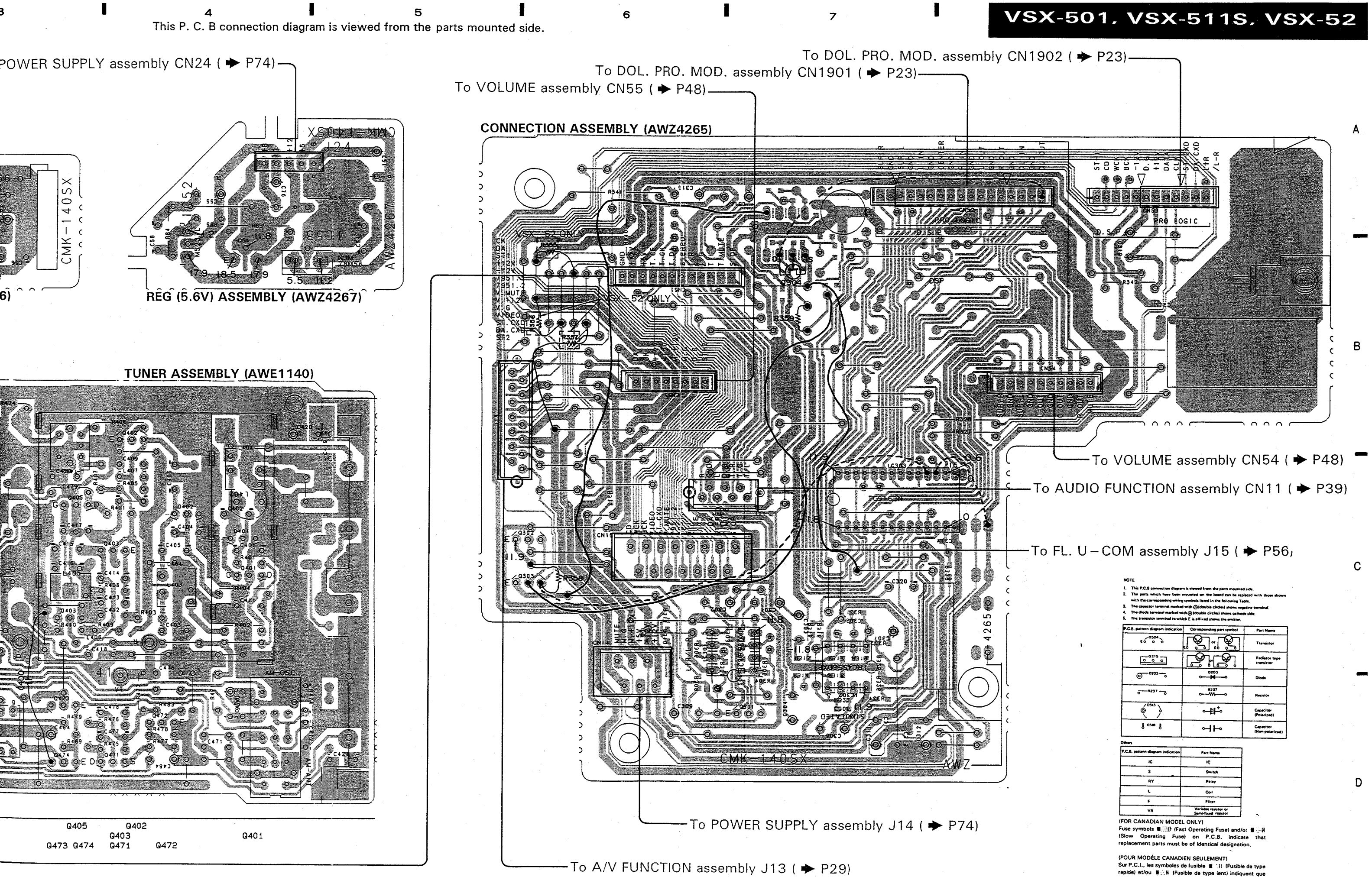

4
5
6
7
8
9
A
B
C
D
:G (5.6V)
To FL. U--COM assembly J15 (➧ P57)
STOP
T.MUTE
STEREO
DT-T
CK-T
CE-T
ST1
7951.1
7951.2
V.MUTE
ST.CXD
VIDEO
BCK
WCK
CD
CN15
A(1:15)
(TUNER)
REG (5.6V) assembly (AWZ4267)
Q51
2SA1306
IC52
M5237L
NJM78M56FA
IC53
R51
10 1W
IC52, IC53, Q51 : REGULATOR
To POWER SUPPLY assembly CN24 (➧ P71)
+B REG
DC
+12V T/V
+5V
DC
J24
REG (12V) assembly (AWZ4266)
IC51, IC54 : REGULATOR
NJM78M12FA3
NJM79M12FA
To POWER SUPPLY assembly CN23 (➧ P71)
+B REG
DC
-B REG
+12V AUDIO
-12V AUDIO
J23
To TUNER assembly CN401 (➧ P12)
STOP
T.MUTE
T.L
T.C
T.R
STEREO
T.DA
T.CK
T.CE
+5V
+12V
G
CN51
To DOL. PRO. MOD. assembly CN1902 (➧ P26)
L+R/L-R
DA.CXD
ST.CXD
CLK
DATA
+12V
M.C
-12V
BCK
WCK
CD
ST-1
CN53
FRONT L
L+R/L-R
IC301, Q301-303 : L+R/L-R
IC301
NJM4558DXP
Q301
2SC2458
Q302
XDA124ES
Q303
XDC124ES
Q304
2SK246
When SIMULATED STEREO
CONNECTION assembly (AWZ4265)
DOLBY SURROUND (REAR)
DOLBY PROLOGIC LCH (FRONT)
GND
S IN
DOLBY
GND
S OUT
IC302 : SIMULATED SURROUND
FRONT L
SIMULATED SURROUND
IC302
NJM4558DXP
IC303
TC9162N
IC303 : SURROUND MODE SELECTOR
SIMULATED
DELAY OUT
DELAYS IN
GND
DOLBYL IN
GND
DOLBYC IN
GND
DOLBYR IN
To DOL. PRO. MOD. assembly CN1901 (➧ P25)
SUR R
GND
SUR L
GND
Lch in
GND
CENT
GND
Rch in
GND
Lch out
A.GND
Rch out
GND
DOL IN
M.GND
DOL OUT
CN52
To VOLUME assembly CN55 (➧ P45)
DA
CK
+12V
-12V
M+12V
M.C
D.C
ST2
CN55
B(1:8)
To VOLUME assembly CN54 (➧ P45)
SUR.R
GND
SUR.L (MONO)
GND
L OUT
GND
CENTER OUT
GND
R OUT
MUTE.AC
CN54
To AUDIO FUNCTION assembly CN11 (➧ P38)
T.L
T.C
T.R
D.C
L
A.C
R
J11
JP
D.GND
+5V
+12V
-12V
To POWER SUPPLY assembly J14 (➧ P71)
MUTE.AC
+12V
-12V
+5V
M+12V
M.C
CN14
R355 10k 1/8W
R356 10k 1/8W
R357 10k 1/8W
M.GND
DATA
CLOCK
STROBE2
CN13
CK
DA
ST1
+12V
-12V
7951.1
7951.2
V.MUTE
+12V (M+12V)
D.G (M.G)
VIDEO
ST.CXD
DA.CXD
ST2
To A/V FUNCTION assembly J13 (➧ P28)
S-METER
VCO
T-METER
D401-403 1SV147
D431-435 1SS252

Legend:
- : FRONT L
- : L+R/L−R
- : DOLBY PROLOGIC (CENTER)
- : DOLBY PROLOGIC DELAY INPUT (REAR)
- : DOLBY SURROUND (REAR)

This P. C. B connection diagram is viewed from the parts mounted side.


1
2
3
4
5
6
A
B
C
D
To POWER SUPPLY assembly CN23 (➡ P74)
To POWER SUPPLY assembly CN24 (➡ P74)
To DOL. PRO. MOD. assembly
To VOLUME assembly CN55 (➡ P48)
CONNECTION ASSEMBLY (AWZ4265)
VSX-501/SD ONLY
9kHz
10kHz
REG (12V) ASSEMBLY (AWZ4266)
REG (5.6V) ASSEMBLY (AWZ4267)
CMK-140SX
NJM 7812
TUNER ASSEMBLY (AWE1140)
ANP1436-B
PIONEER
T-METER
S-METER
LA1265S
AN7470P
LM7001
AM-OSC
53 52 51 50 49 48
46 45 44 43 41
CN401
VR451
VR431 VR432
IC451
Q452-Q454
Q455
Q451
IC431
Q421
IC471
Q405
Q473 Q474
Q402
Q403
Q471
Q472
Q401
VSX-52 ONLY
CN15
To POWER SUP
To A/V FUNCTION assembly J13

This P. C. B connection diagram is viewed from the parts mounted side.


3
4
5
6
7
POWER SUPPLY assembly CN24 (➡ P74)
To DOL. PRO. MOD. assembly CN1902 (➡ P23)
To DOL. PRO. MOD. assembly CN1901 (➡ P23)
To VOLUME assembly CN55 (➡ P48)
CONNECTION ASSEMBLY (AWZ4265)
A
REG (5.6V) ASSEMBLY (AWZ4267)
CMK-140SX
AWZ4267
J24
VSX-52 ONLY
B
TUNER ASSEMBLY (AWE1140)
PRO LOGIC
D.S.P
CN54
CN53
To VOLUME assembly CN54 (➡ P48)
To AUDIO FUNCTION assembly CN11 (➡ P39)
To FL. U-COM assembly J15 (➡ P56)
C
CN15
CN11
AM-OSC
AM-ANT
4265
AWZ
D
To POWER SUPPLY assembly J14 (➡ P74)
To A/V FUNCTION assembly J13 (➡ P29)
Q405
Q402
Q403
Q401
Q473 Q474
Q471
Q472
3
4
5
6
7
8
9

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E Q504	E or E	Transistor
Q215	or	Radiator type transistor
◎ D203	D203	Diode
R237	R237	Resistor
◎ C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

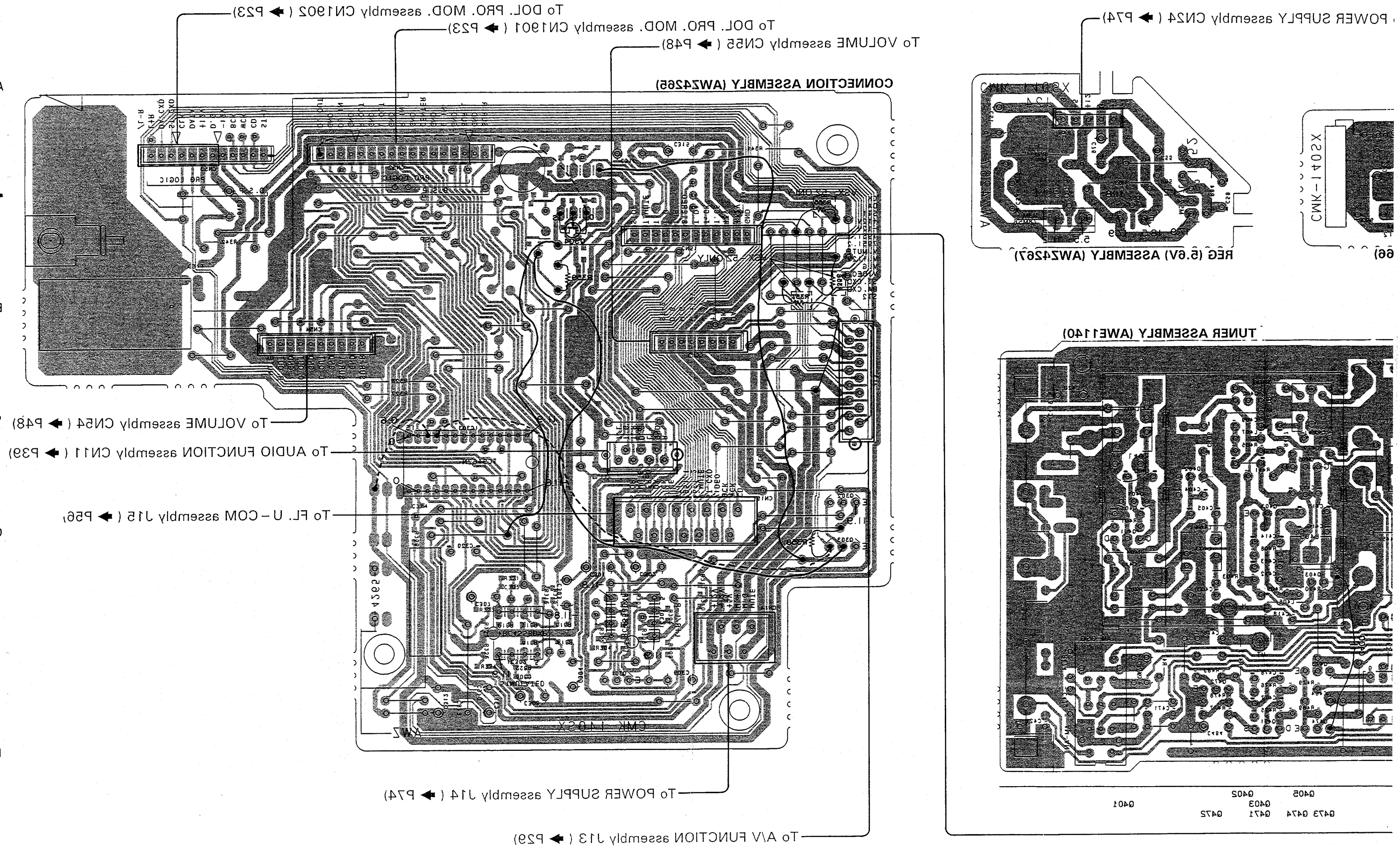
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

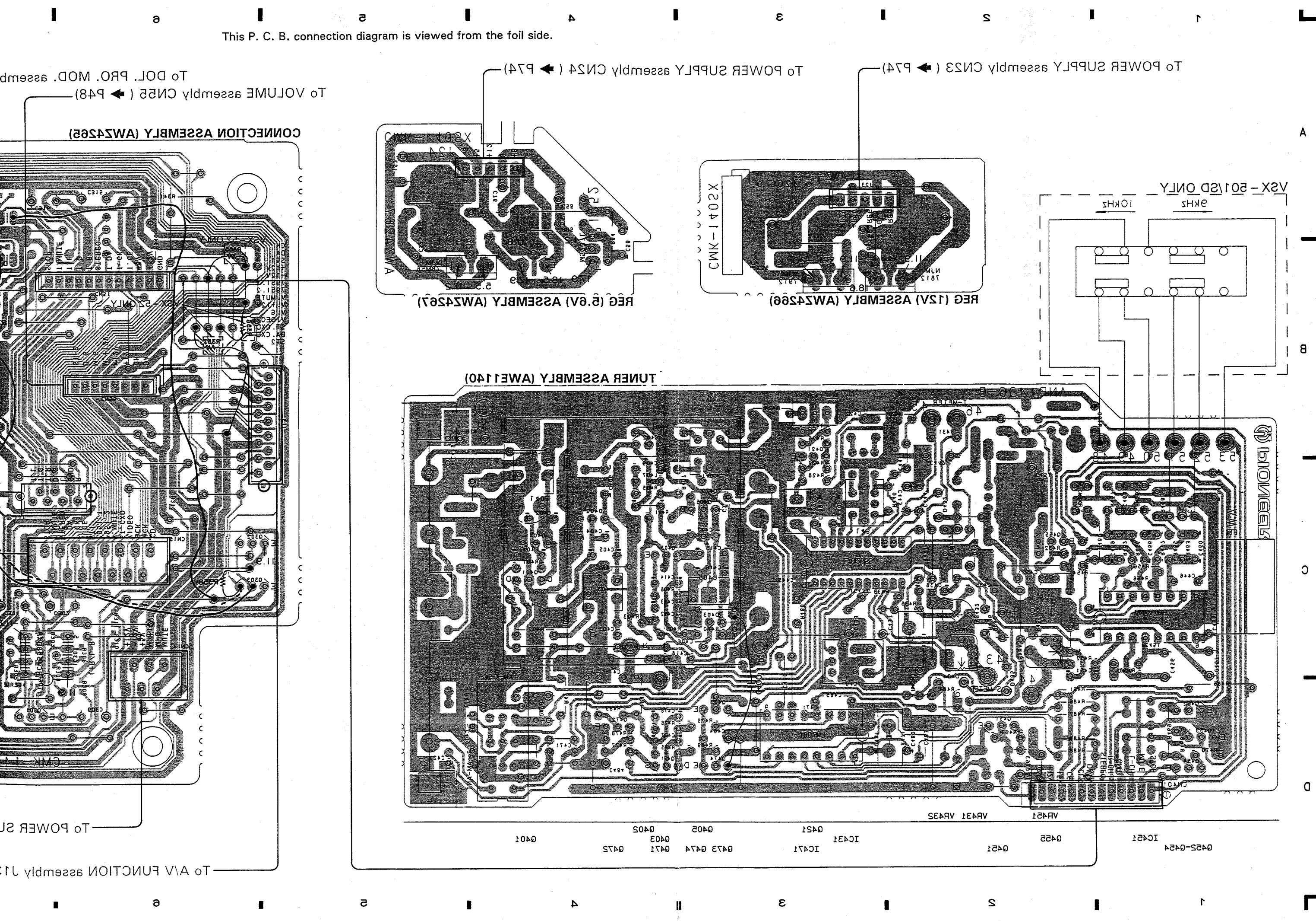
(FOR CANADIAN MODEL ONLY)
Fuse symbols (Fast Operating Fuse) and/or (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible (Fusible de type rapide) et/ou (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.

This P. C. B. connection diagram is viewed from the foil side.


7
6
5
4
3
To DOL. PRO. MOD. assembly CN1902 (➡ P23)
To DOL. PRO. MOD. assembly CN1901 (➡ P23)
To VOLUME assembly CN55 (➡ P48)
CONNECTION ASSEMBLY (AWZ4265)
POWER SUPPLY assembly CN24 (➡ P74)
REG (5.6V) ASSEMBLY (AWZ4267)
CWK-1405X
TUNER ASSEMBLY (AWE1140)
VSX-52 ONLY
To VOLUME assembly CN54 (➡ P48)
To AUDIO FUNCTION assembly CN11 (➡ P39)
To FL. U-COM assembly J15 (➡ P56)
CMK-140SX
To POWER SUPPLY assembly J14 (➡ P74)
To A/V FUNCTION assembly J13 (➡ P29)
Q401
Q402
Q403
Q405
Q472
Q471
Q474
Q473
9
8
7
6
5
4
3

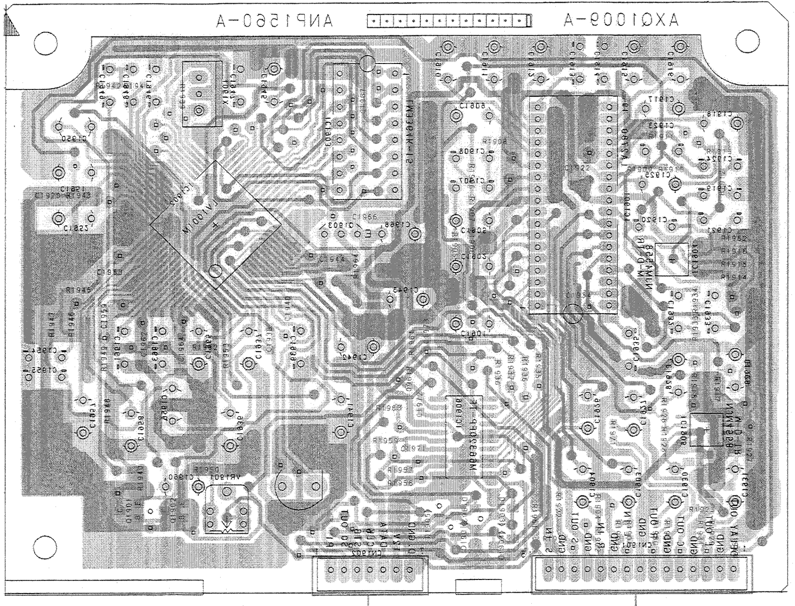
This P. C. B. connection diagram is viewed from the foil side.


6
5
4
3
2
1
A
B
C
D
To DOL. PRO. MOD. assemb
To VOLUME assembly CN55 (→ P48)
CONNECTION ASSEMBLY (AWZ4265)
To POWER SUPPLY assembly CN24 (→ P74)
REG (5.6V) ASSEMBLY (AWZ4267)
To POWER SUPPLY assembly CN23 (→ P74)
REG (12V) ASSEMBLY (AWZ4266)
VSX-501/SD ONLY
9kHz
10kHz
TUNER ASSEMBLY (AWE1140)
PIONEER
To POWER SU
To A/V FUNCTION assembly J1
Q401
Q402
Q403
Q472
Q471
Q405
Q473 Q474
Q421
IC431
IC471
VR432 VR431
VR451
Q451
Q455
IC451
Q452-Q454

5.3 DOL. PRO. MOD. ASSEMBLY

This P. C. B. connection diagram is viewed from the foil side.

DOL. PRO. MOD. ASSEMBLY (AXQ1009)

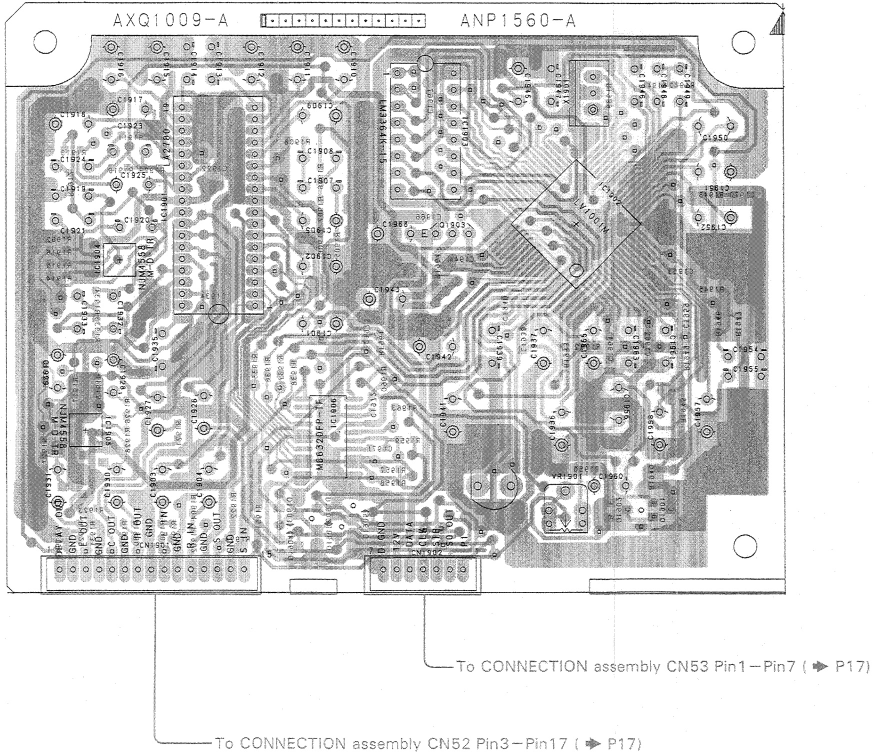


To CONNECTION assembly CN53 Pin1–Pin7 (➡ P17)

To CONNECTION assembly CN52 Pin3–Pin17 (➡ P17)

This P. C. B connection diagram is viewed from the parts mounted side.

DOL. PRO. MOD. ASSEMBLY (AXQ1009)


AXQ1009-A
ANP1560-A
LA2780
NJM4558 M-D-TR
LM3364K-15
LV1001M
M66320FP-TF
NJM4558 M-D-TR
IC1901
IC1902
IC1903
IC1904
IC1905
IC1906
Q1903
X1901
VR1901
CN1901
CN1902
DELAY OUT
GND
C OUT
GND
R OUT
GND
L IN
GND
R IN
GND
S OUT
GND
NR
S
12V
DATA
CLK
STB
SO OUT
GND
15
1

To CONNECTION assembly CN53 Pin1—Pin7 (➧ P17)

To CONNECTION assembly CN52 Pin3—Pin17 (➧ P17)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

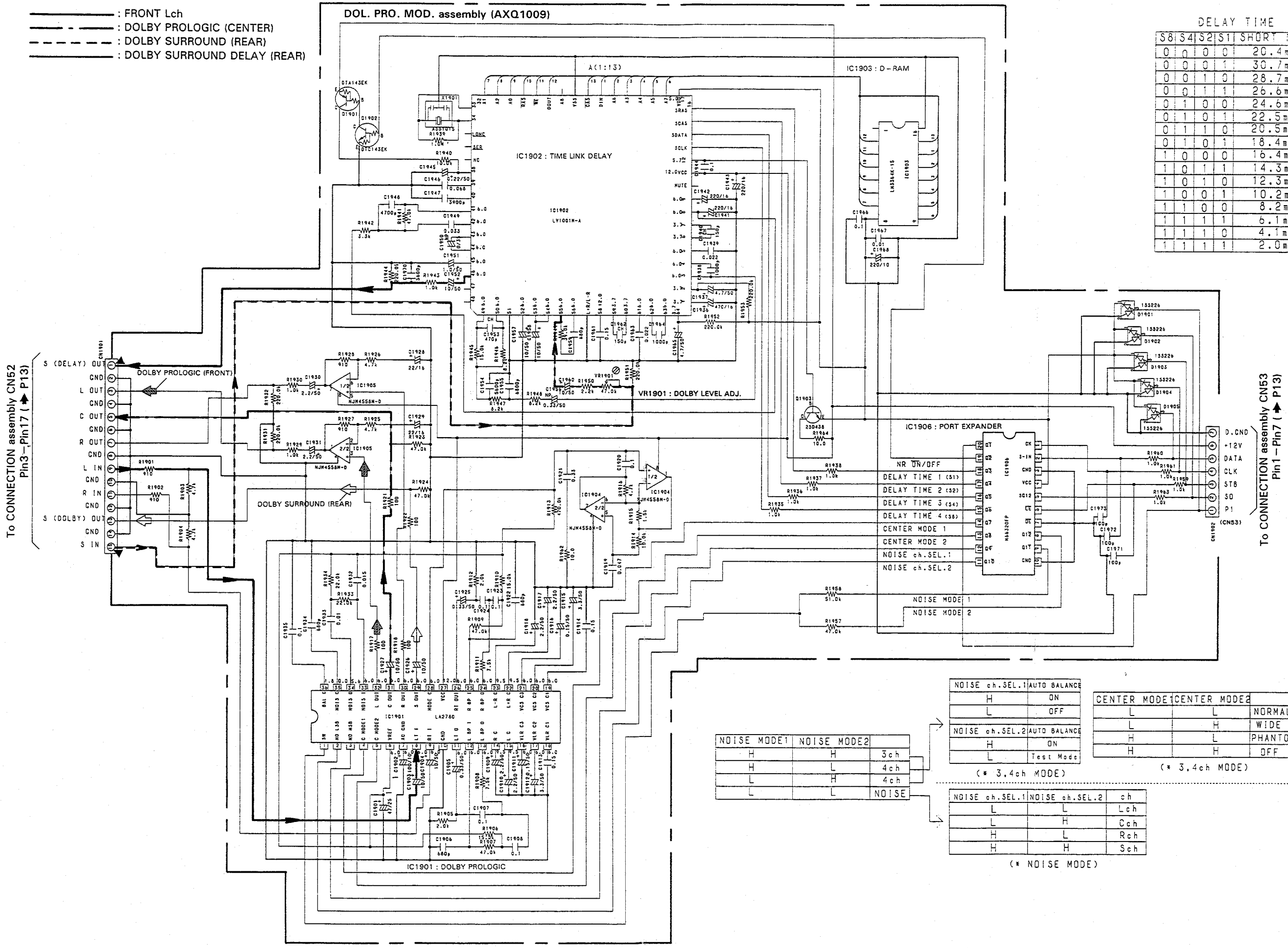
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E○ Q504 ○ ○	E○ ○ ○ or E○ ○ ○	Transistor
Q215 ○ ○ ○	or	Radiator type transistor
◎ D203 ○	D203	Diode
○ R237 ○	R237	Resistor
◎ C513 ○	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)
Fuse symbols ─▮══─ (Fast Operating Fuse) and/or ─▮══☒─ (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible ─▮══─ (Fusible de type rapide) et/ou ─▮══☒─ (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.


: FRONT Lch
: DOLBY PROLOGIC (CENTER)
: DOLBY SURROUND (REAR)
: DOLBY SURROUND DELAY (REAR)
DOL. PRO. MOD. assembly (AXQ1009)
IC1902 : TIME LINK DELAY
IC1902
LV1001N-A
A(1:13)
IC1903 : D-RAM
LH5364K-15
DTA143EK
Q1901
Q1902
DTC143EK
X1901
CN1901
S (DELAY) OUT
GND
L OUT
GND
C OUT
GND
R OUT
GND
L IN
GND
R IN
GND
S (DOLBY) OUT
GND
S IN
To CONNECTION assembly CN52 Pin3 – Pin17 (→ P13)
DOLBY PROLOGIC (FRONT)
DOLBY SURROUND (REAR)
IC1905
NJM4558M-D
IC1904
NJM4558M-D
VR1901 : DOLBY LEVEL ADJ.
Q1903
2SD438
IC1906 : PORT EXPANDER
M66320FP
NR ON/OFF
DELAY TIME 1 (S1)
DELAY TIME 2 (S2)
DELAY TIME 3 (S4)
DELAY TIME 4 (S8)
CENTER MODE 1
CENTER MODE 2
NOISE ch.SEL.1
NOISE ch.SEL.2
NOISE MODE 1
NOISE MODE 2
D1901
D1902
D1903
D1904
D1905
1SS226
CN1902
(CN53)
D.GND
+12V
DATA
CLK
STB
SO
P1
To CONNECTION assembly CN53 Pin1 – Pin7 (→ P13)
IC1901
LA2780
IC1901 : DOLBY PROLOGIC
1
2
3
4
5
6
A
B
C
D

DELAY TIME

S8	S4	S2	S1	SHORT MODE
0	0	0	0	20.4ms
0	0	0	1	30.7ms
0	0	1	0	28.7ms
0	0	1	1	26.6ms
0	1	0	0	24.6ms
0	1	0	1	22.5ms
0	1	1	0	20.5ms
0	1	0	1	18.4ms
1	0	0	0	16.4ms
1	0	1	1	14.3ms
1	0	1	0	12.3ms
1	0	0	1	10.2ms
1	1	0	0	8.2ms
1	1	1	1	6.1ms
1	1	1	0	4.1ms
1	1	1	1	2.0ms

NOISE MODE1	NOISE MODE2	
H	H	3ch
H	L	4ch
L	H	4ch
L	L	NOISE

NOISE ch.SEL.1	AUTO BALANCE
H	ON
L	OFF

NOISE ch.SEL.2	AUTO BALANCE
H	ON
L	Test Mode

(* 3,4ch MODE)

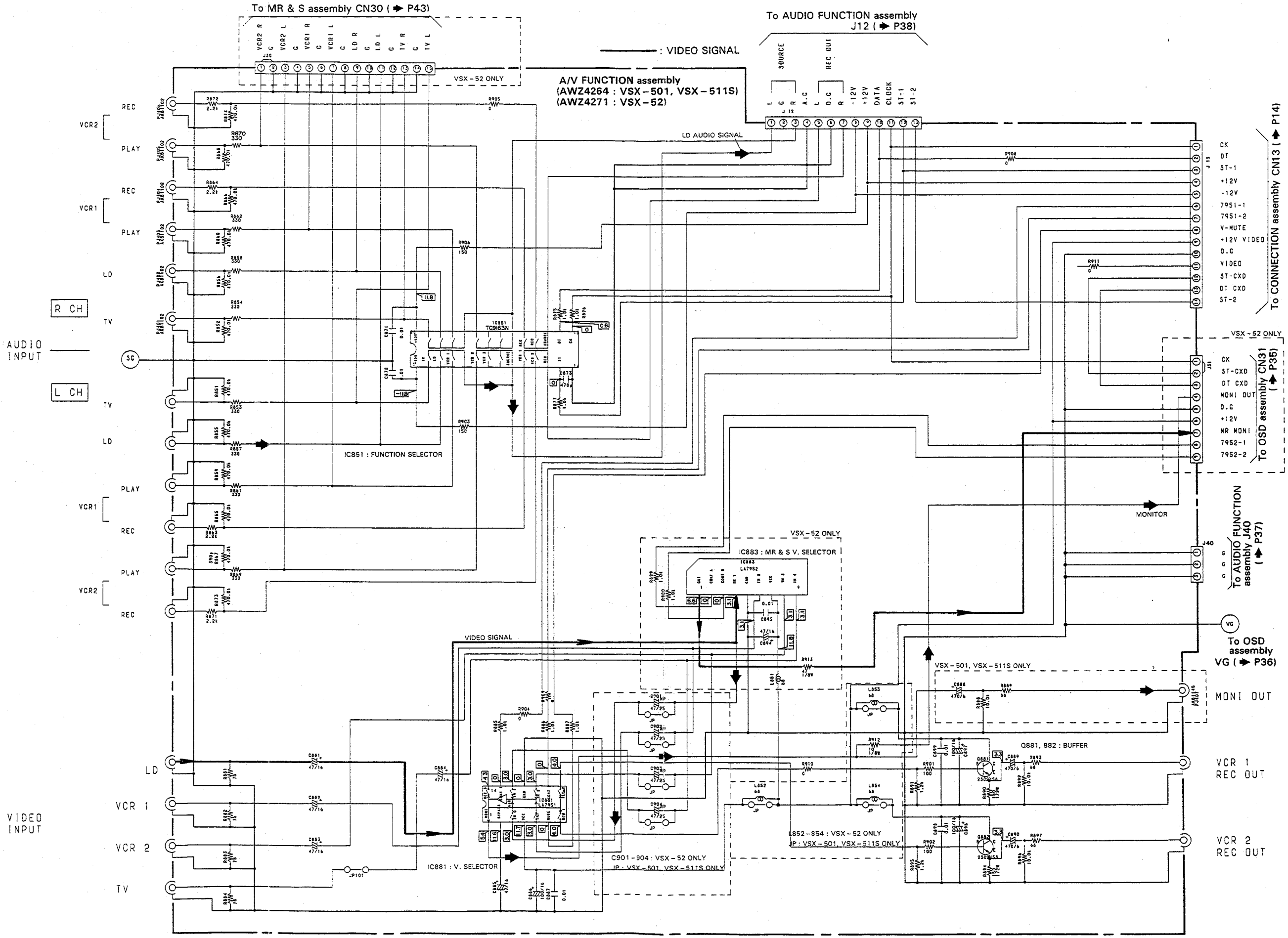
CENTER MODE1	CENTER MODE2	
L	L	NORMAL
L	H	WIDE
H	L	PHANTOM
H	H	OFF

(* 3,4ch MODE)

NOISE ch.SEL.1	NOISE ch.SEL.2	ch
L	L	Lch
L	H	Cch
H	L	Rch
H	H	Sch

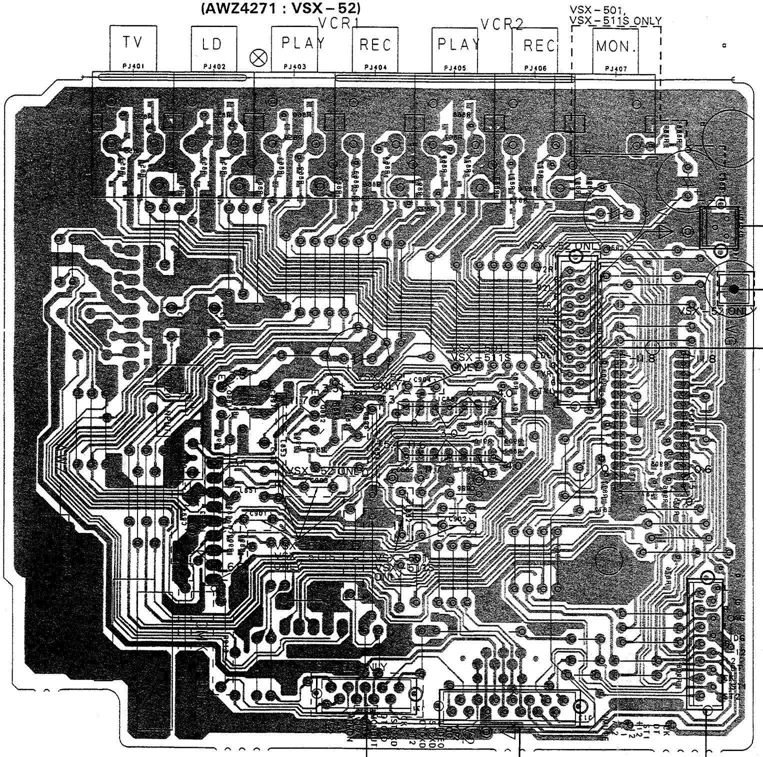
(* NOISE MODE)

5.4 A/V FUNCTION ASSEMBLY


To MR & S assembly CN30 (➜ P43)
VCR2 R
VCR2 L
VCR1 R
VCR1 L
LD R
LD L
TV R
TV L
J30
VSX-52 ONLY
To AUDIO FUNCTION assembly
J12 (➜ P38)
SOURCE
REC OUT
: VIDEO SIGNAL
A/V FUNCTION assembly
(AWZ4264 : VSX-501, VSX-511S)
(AWZ4271 : VSX-52)
L
G
R
A.C
D.C
-12V
+12V
DATA
CLOCK
ST-1
ST-2
J12
LD AUDIO SIGNAL
CK
DT
ST-1
+12V
-12V
7951-1
7951-2
V-MUTE
+12V VIDEO
D.C
VIDEO
ST-CXD
DT CXD
ST-2
J13
To CONNECTION assembly CN13 (➜ P14)
VSX-52 ONLY
CK
ST-CXD
DT CXD
MONI OUT
D.C
+12V
MR MONI
7952-1
7952-2
J31
To OSD assembly CN31 (➜ P35)
MONITOR
To AUDIO FUNCTION assembly J40 (➜ P37)
J40
G
G
G
VG
To OSD assembly VG (➜ P36)
REC
PLAY
VCR2
VCR1
LD
TV
R CH
AUDIO INPUT
SC
L CH
TV
LD
PLAY
VCR1
REC
PLAY
VCR2
REC
IC851
TC9163N
IC851 : FUNCTION SELECTOR
11.8
-11.8
0.6
C871
C872
C873
R872 2.2k
R874
R870 330
R864 2.2k
R862 330
R858 330
R854 330
R853 330
R857 330
R861 330
R865
R869 330
R873
R871 2.2k
R905 0
R906 150
R903 150
R875
R876
R877
R908 0
R911 0
VSX-52 ONLY
IC883 : MR & S V. SELECTOR
IC883
LA7952
6.6
0
0
3.1
3.1
3.1
11.8
0.01
C895
47/16
C894
R899
R900
R913 47 1/8W
L851
VIDEO SIGNAL
VSX-501, VSX-511S ONLY
C888 470/6
R884 68
R898
MONI OUT
L853 68 JP
R912 10 1/8W
Q881, 882 : BUFFER
C889 470/6
R893
R901 100
R910 0
Q881 2SC2458A
VCR 1 REC OUT
L852 68 JP
L854 68 JP
L852-854 : VSX-52 ONLY
JP : VSX-501, VSX-511S ONLY
C890 470/6
R897
R902 100
Q882 2SC2458A
VCR 2 REC OUT
C901 47/25 JP
C902 47/25 JP
C903 47/25 JP
C904 47/25 JP
C901-904 : VSX-52 ONLY
JP : VSX-501, VSX-511S ONLY
R904 0
R885
R886
R887
IC881
LA7951
IC881 : V. SELECTOR
4.3
3.0
3.0
4.0
0
11.7
4.0
4.0
3.0
5.0
C884 47/16
C885 47/16
C886 100/16
C887 0.01
LD
VCR 1
VCR 2
TV
VIDEO INPUT
C881 47/16
C882 47/16
C883 47/16
R881 75
R882 75
R883 75
R884 75
JP101

A/V FUNCTION ASSEMBLY (AWZ4264 : VSX−501, VSX−511S)
(AWZ4271 : VSX−52)

This P. C. B connection diagram is viewed from the parts mounted side.



To AUDIO FUNCTION assembly J40 (➧ P39)

To OSD assembly VG (➧ P34)

To MR & S assembly CN30 (➧ P42)

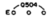
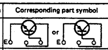
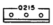
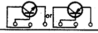
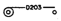
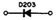
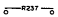
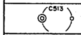
To OSD assembly CN31 (➧ P34)

To CONNECTION assembly J13 (➧ P16)

To AUDIO FUNCTION assembly J12 (➧ P39)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

Others

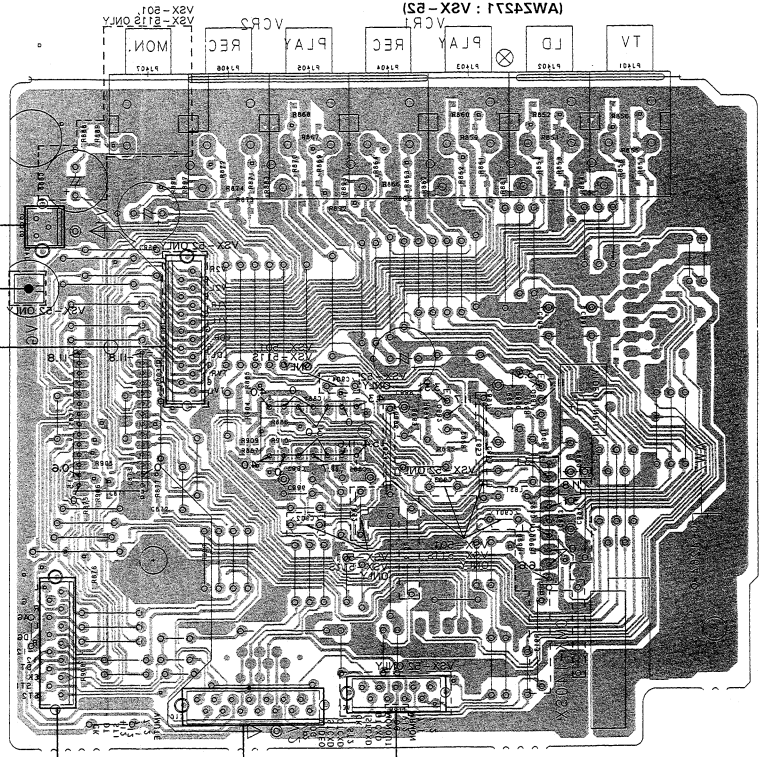
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)
Fuse symbols (Fast Operating Fuse) and/or (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible (Fusible de type rapide) et/ou (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.

This P. C. B. connection diagram is viewed from the foil side.

A/V FUNCTION ASSEMBLY (AWZ4264 : VSX-501, VSX-511S)
(AWZ4271 : VSX-52)


VSX-501,
VSX-511S ONLY
MON.
VCR2
REC
PLAY
VCR1
REC
PLAY
LD
TV
VSX-52 ONLY
VSX-511S ONLY
VG

To AUDIO FUNCTION assembly J40 (→ P39)

To OSD assembly VG (→ P34)

To MR & S assembly CN30 (→ P42)

To OSD assembly CN31 (→ P34)

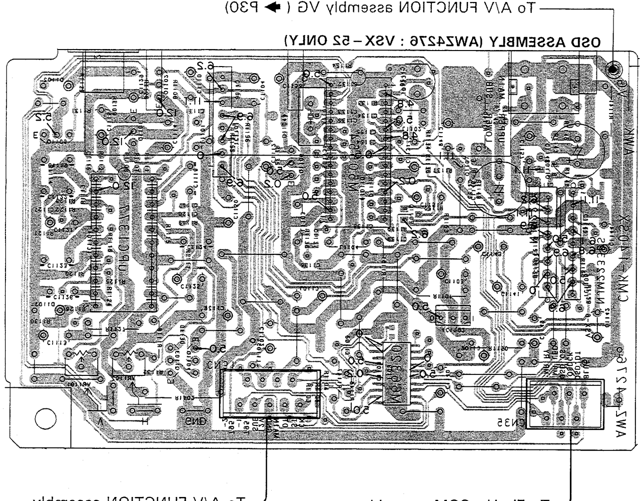
To CONNECTION assembly J13 (→ P16)

To AUDIO FUNCTION assembly J12 (→ P39)

5.5 OSD ASSEMBLY

To A/V FUNCTION assembly VG (➡ P30)

OSD ASSEMBLY (AWZ4276 : VSX-52 ONLY)



To A/V FUNCTION assembly J131 (➡ P29)

To FL. U-COM assembly J135 (➡ P56)

This P. C. B. connection diagram is viewed from the foil side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203 ◎	D203	Diode
R237	R237	Resistor
C513 ◎	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)

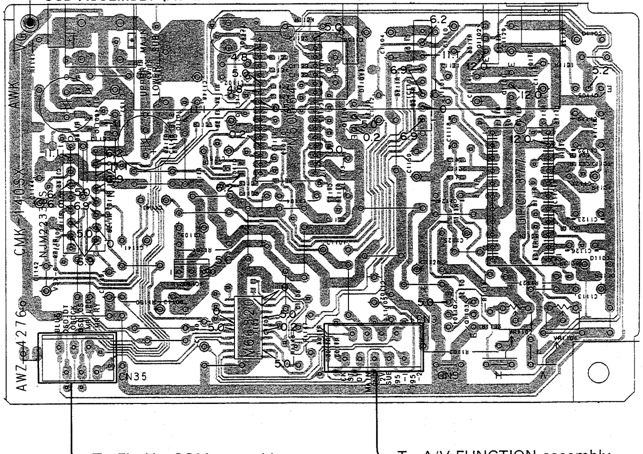
Fuse symbols ⊣▭▮⊢ (Fast Operating Fuse) and/or ⊣☒▭▮⊢ (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÉLE CANADIEN SEULEMENT)

Sur P.C.I., les symboles de fusible ⊣▭▮⊢ (Fusible de type rapide) et/ou ⊣☒▭▮⊢ (Fusible de type lent) indiquent que les piéces de remplacement doivent avoir la même désignation.

To A/V FUNCTION assembly VG (➧ P30)

OSD ASSEMBLY (AWZ4276 : VSX-52 ONLY)



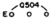
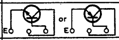
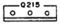
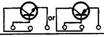
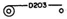
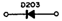
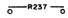
To FL. U-COM assembly
J35 (➧ P56)

To A/V FUNCTION assembly
J31 (➧ P29)

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

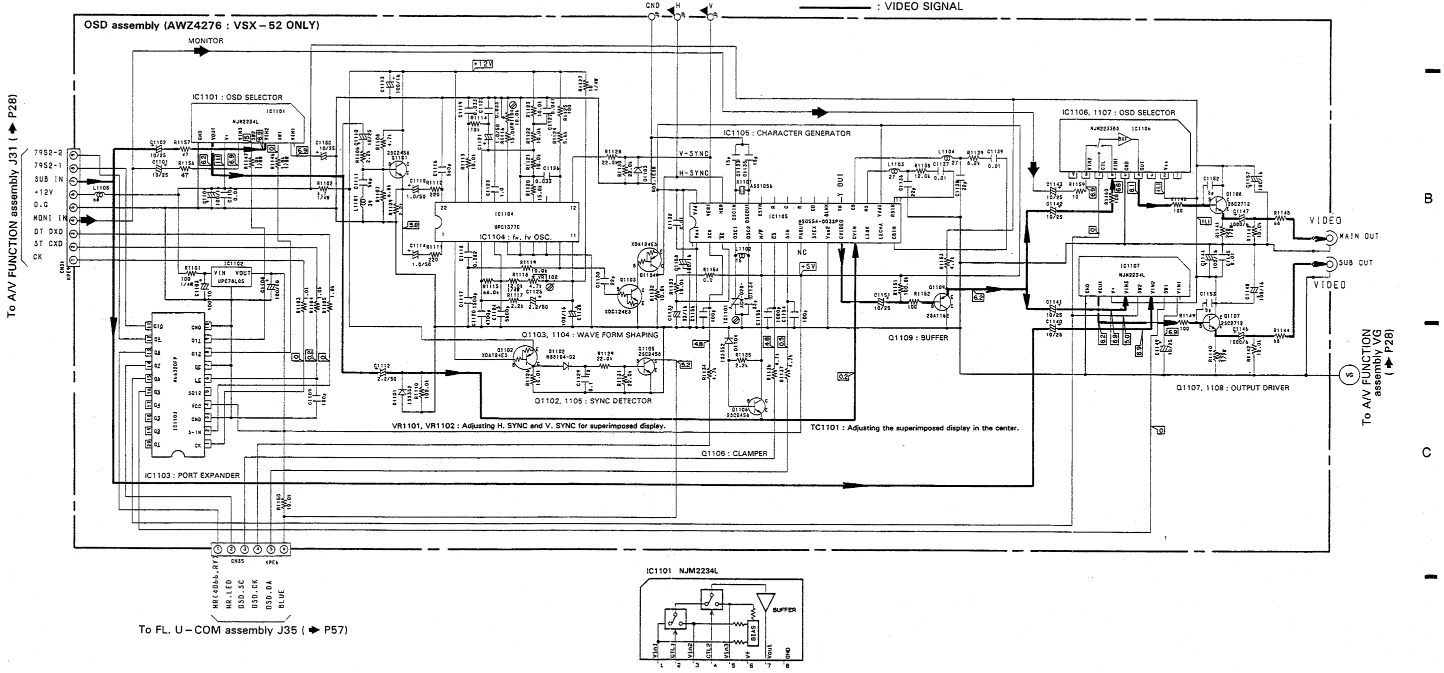
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

Others

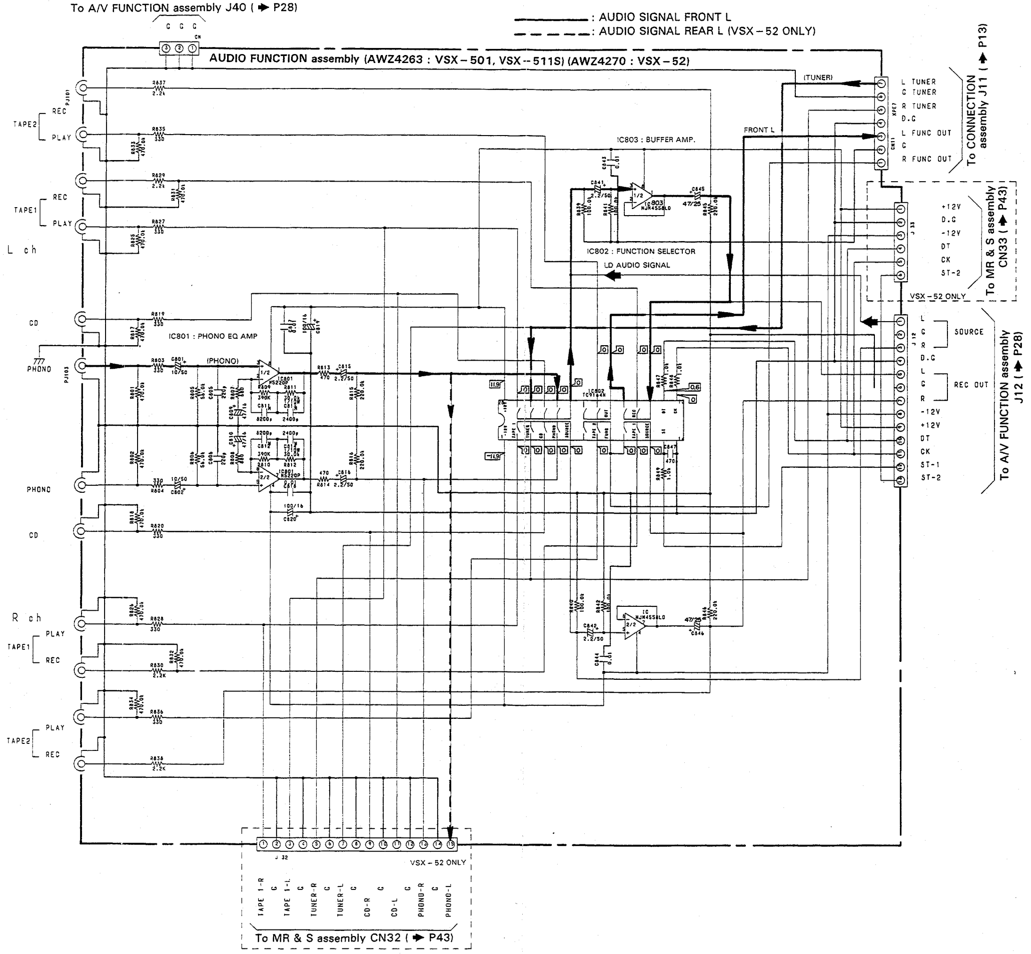
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)
Fuse symbols ▬ (Fast Operating Fuse) and/or ▬☒ (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

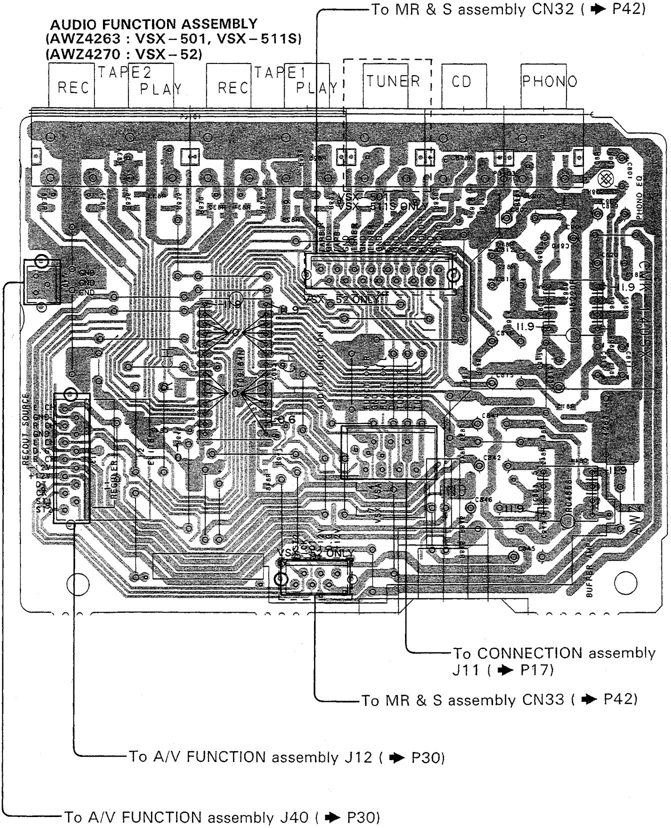
(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible ▬ (Fusible de type rapide) et/ou ▬☒ (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.


: VIDEO SIGNAL
OSD assembly (AWZ4276 : VSX-52 ONLY)
MONITOR
GND
H
V
+12V
IC1101 : OSD SELECTOR
NJM2234L
IC1102
UPC78L05
IC1103 : PORT EXPANDER
M66320FP
IC1104 : fH, fV OSC.
UPC1377C
IC1105 : CHARACTER GENERATOR
M50554-003SP
V-SYNC
H-SYNC
Y OUT
NC
+5V
IC1106, 1107 : OSD SELECTOR
NJM2233BS
NJM2234L
Q1101 2SC2458
Q1102, 1105 : SYNC DETECTOR
Q1103, 1104 : WAVE FORM SHAPING
Q1106 : CLAMPER
Q1109 : BUFFER
Q1107, 1108 : OUTPUT DRIVER
VR1101, VR1102 : Adjusting H. SYNC and V. SYNC for superimposed display.
TC1101 : Adjusting the superimposed display in the center.
7952-2
7952-1
SUB IN
+12V
D.G
MONI IN
DT DXD
ST CXD
CK
CN31
KPE9
To A/V FUNCTION assembly J31 (➡ P28)
VIDEO
MAIN OUT
SUB OUT
VIDEO
VG
To A/V FUNCTION assembly VG (➡ P28)
CN35
KPE6
MR(4066,RY)
MR.LED
OSD.SC
OSD.CK
OSD.DA
BLUE
To FL. U-COM assembly J35 (➡ P57)
IC1101 NJM2234L
BUFFER
BIAS
Vin1
CTL1
Vin2
CTL2
Vin3
V+
Vout
GND

5.6 AUDIO FUNCTION ASSEMBLY


To A/V FUNCTION assembly J40 (➔ P28)
: AUDIO SIGNAL FRONT L
: AUDIO SIGNAL REAR L (VSX-52 ONLY)
AUDIO FUNCTION assembly (AWZ4263 : VSX-501, VSX-511S) (AWZ4270 : VSX-52)
TAPE2 REC
TAPE2 PLAY
TAPE1 REC
TAPE1 PLAY
L ch
CD
PHONO
R ch
TAPE1 PLAY
TAPE1 REC
TAPE2 PLAY
TAPE2 REC
IC801 : PHONO EQ AMP
(PHONO)
IC802 : FUNCTION SELECTOR
TC9164N
LD AUDIO SIGNAL
IC803 : BUFFER AMP.
NJM4558LD
(TUNER)
FRONT L
L TUNER
G TUNER
R TUNER
D.G
L FUNC OUT
G
R FUNC OUT
To CONNECTION assembly J11 (➔ P13)
+12V
D.G
-12V
DT
CK
ST-2
VSX-52 ONLY
To MR & S assembly CN33 (➔ P43)
L
G
R
SOURCE
D.G
L
G
R
REC OUT
-12V
+12V
DT
CK
ST-1
ST-2
To A/V FUNCTION assembly J12 (➔ P28)
J32
VSX-52 ONLY
TAPE 1-R
G
TAPE 1-L
G
TUNER-R
G
TUNER-L
G
CD-R
G
CD-L
G
PHONO-R
G
PHONO-L
To MR & S assembly CN32 (➔ P43)
A
B
C
D
1
2
3
4
5
6

AUDIO FUNCTION ASSEMBLY
(AWZ4263 : VSX－501, VSX－511S)
(AWZ4270 : VSX－52)


A
B
C
D
TAPE2
REC
PLAY
TAPE1
REC
PLAY
TUNER
CD
PHONO
VSX－501
VSX－511S ONLY
VSX－52 ONLY
PHONO EQ
GND
GND
GND
RECOUT SOURCE
REGULER
AUDIO FUNCTION
BUFFER AMP
11.9
11.6
11.9
11.9
11.9
11.9
A
B
C
D

To MR & S assembly CN32 (➡ P42)

To CONNECTION assembly J11 (➡ P17)

To MR & S assembly CN33 (➡ P42)

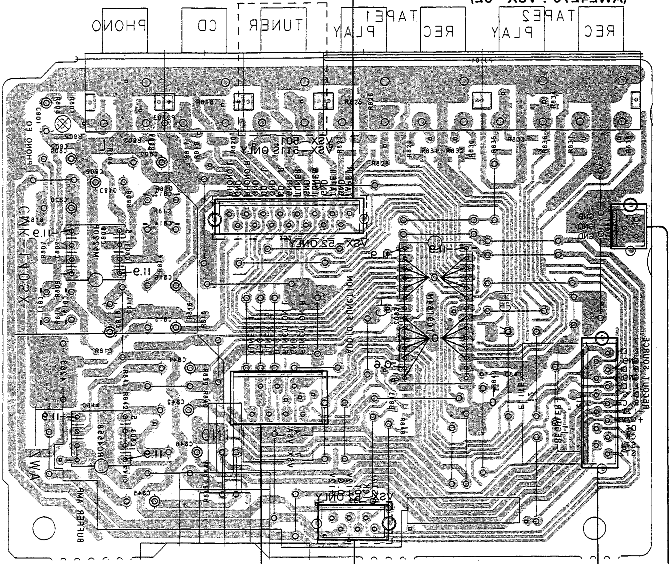
To A/V FUNCTION assembly J12 (➡ P30)

To A/V FUNCTION assembly J40 (➡ P30)

This P. C. B connection diagram is viewed from the parts mounted side.

AUDIO FUNCTION ASSEMBLY
(AWZ4263 : VSX-501, VSX-511S)
(AWZ4270 : VSX-52)

To MR & S assembly CN32 (➡ P42)



PHONO
CD
TUNER
TAPE1
PLAY
REC
TAPE2
PLAY
REC
VSX-501
VSX-511S ONLY
VSX-52 ONLY
PHONO EQ
AUDIO FUNCTION
RECORD SOURCE
BUFFER AMP
GND
11.9
-11.9
9.0

To CONNECTION assembly J11 (➡ P17)

To MR & S assembly CN33 (➡ P42)

To A/V FUNCTION assembly J12 (➡ P30)

To A/V FUNCTION assembly J40 (➡ P30)

A

B

C

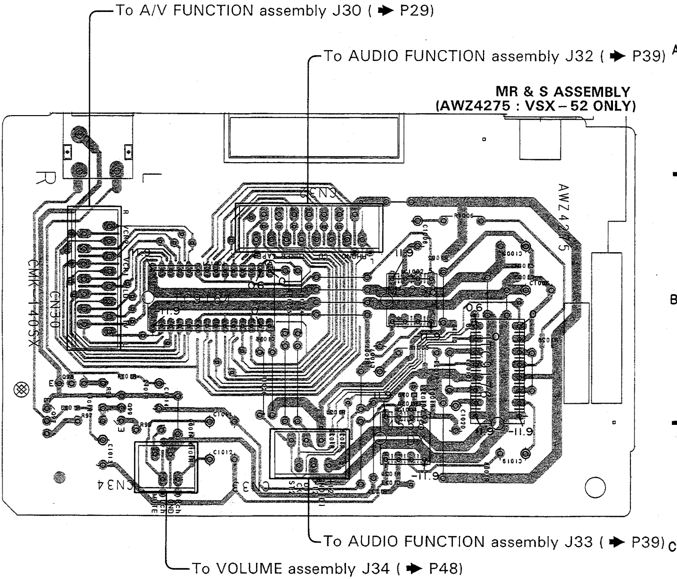
D

This P. C. B. connection diagram is viewed from the foil side.

MR & S ASSEMBLY
(AWZ4275 : VSX-52 ONLY)

To A/V FUNCTION assembly J30 (➔ P29)

To AUDIO FUNCTION assembly J32 (➔ P39)



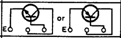
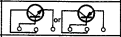
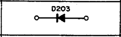
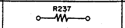
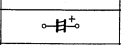
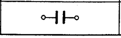
To AUDIO FUNCTION assembly J33 (➔ P39)

To VOLUME assembly J34 (➔ P48)

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E o o o		Transistor
Q215 o o o		Radiator type transistor
◎ D203 o		Diode
o R237 o		Resistor
C513 ◎ o		Capacitor (Polarized)
o C518 o		Capacitor (Non-polarized)

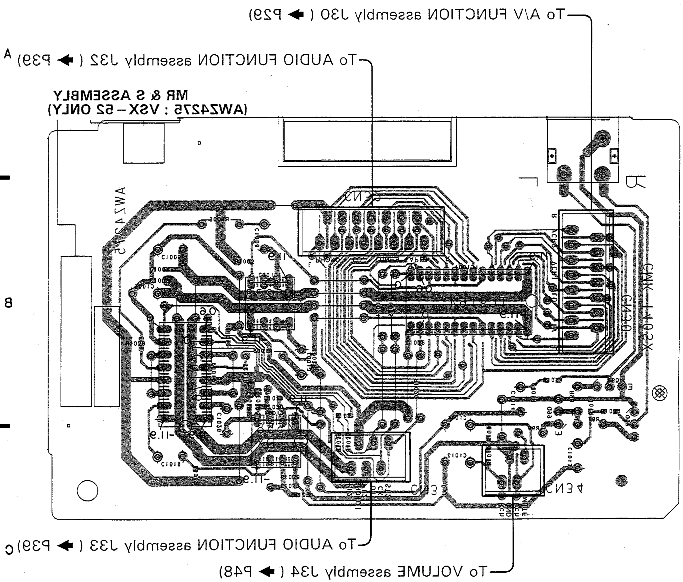
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

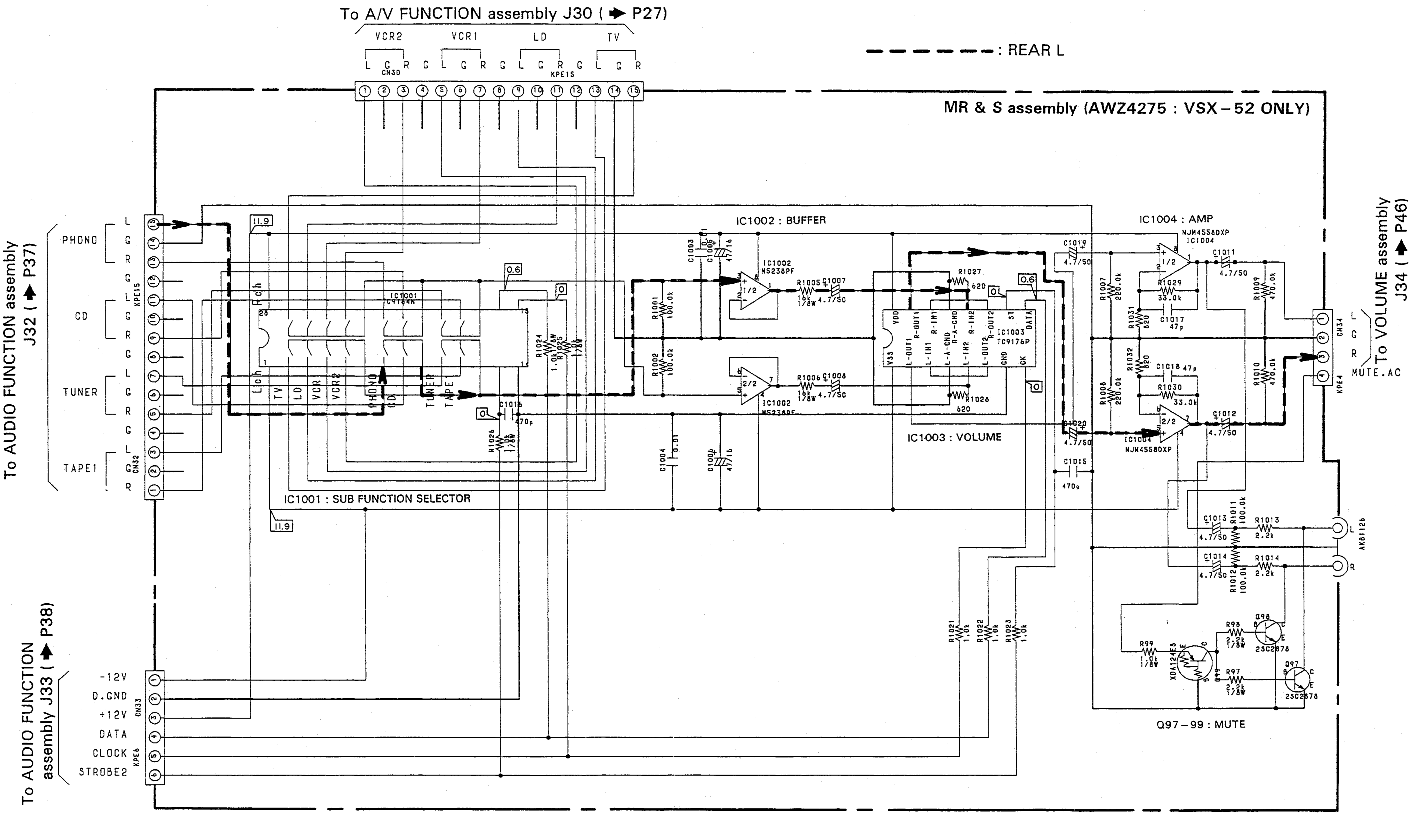
(FOR CANADIAN MODEL ONLY)
Fuse symbols -■⊟- (Fast Operating Fuse) and/or -■⊠- (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible -■⊟- (Fusible de type rapide) et/ou -■⊠- (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.

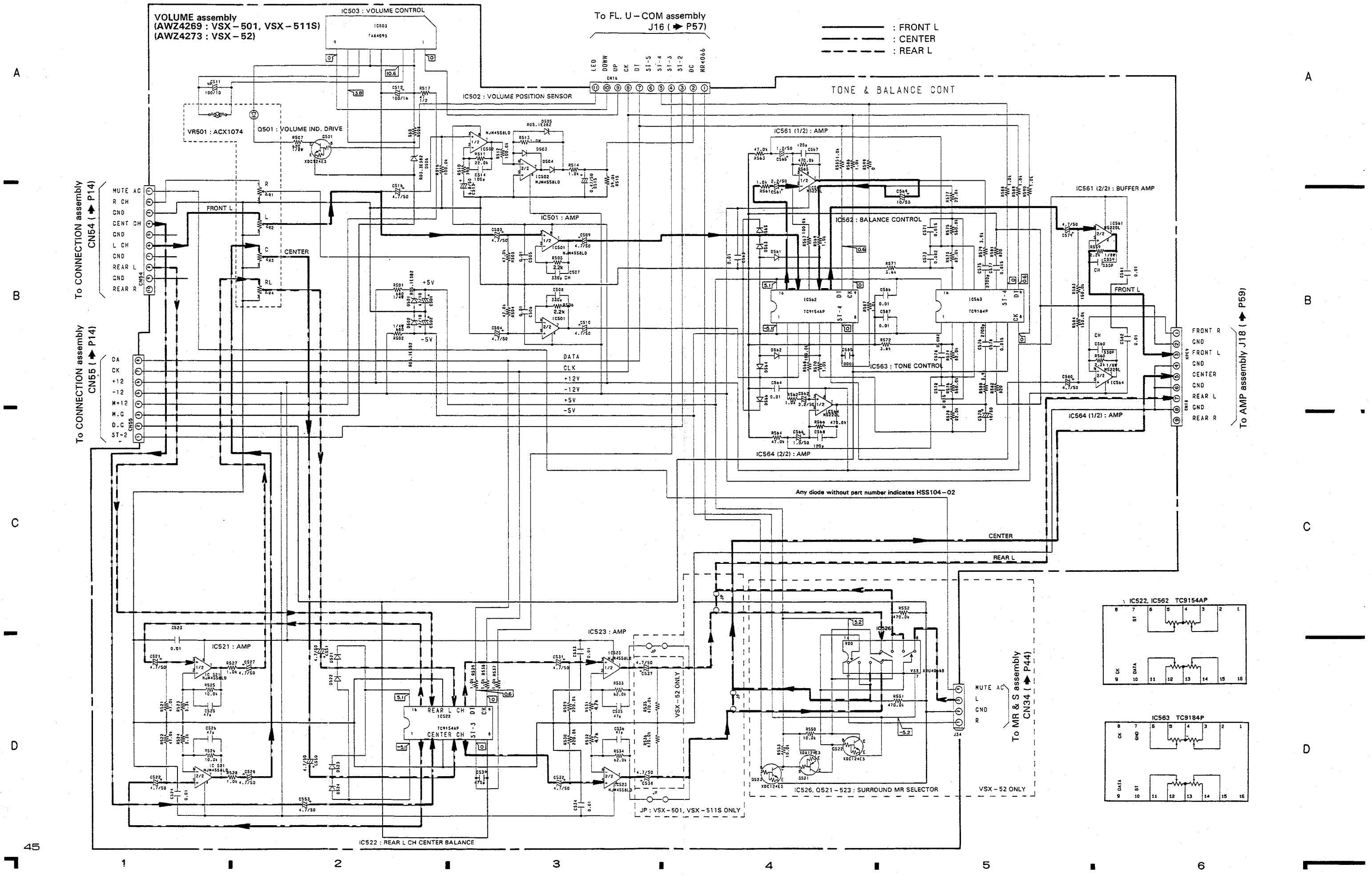
5.7 MR & S ASSEMBLY


To A/V FUNCTION assembly J130 (→ P29)
To AUDIO FUNCTION assembly J132 (→ P39)
MR & S ASSEMBLY
(AWZ4275 : VSX-52 ONLY)
AWZ4275
CN3
CN10
CN33
CN34
To AUDIO FUNCTION assembly J133 (→ P39)
To VOLUME assembly J134 (→ P48)

This P. C. B. connection diagram is viewed from the foil side.


To A/V FUNCTION assembly J30 (➡ P27)
VCR2
VCR1
LD
TV
CN30
KPE15
– – – – – : REAR L
MR & S assembly (AWZ4275 : VSX-52 ONLY)
To AUDIO FUNCTION assembly J32 (➡ P37)
PHONO
CD
TUNER
TAPE1
CN32
KPE15
IC1001 : SUB FUNCTION SELECTOR
IC1001
TC9164N
IC1002 : BUFFER
IC1002
NJM2068F
R1005 16k 1/8W
C1007 4.7/50
R1006 16k 1/8W
C1008 4.7/50
R1001 100.0k
R1002 100.0k
C1003 0.01
C1005 47/16
C1004 0.01
C1006 47/16
C1016 470p
R1024 1.0k 1/8W
R1025 1.0k 1/8W
R1026 1.0k 1/8W
IC1003 : VOLUME
IC1003
TC9176P
R1027 620
R1028 620
IC1004 : AMP
NJM4558DXP
IC1004
C1019 4.7/50
C1020 4.7/50
C1015 470p
C1011 4.7/50
C1012 4.7/50
R1007 220.0k
R1008 220.0k
R1029 33.0k
R1030 33.0k
R1031 820
R1032 820
C1017 47p
C1018 47p
R1009 470.0k
R1010 470.0k
To VOLUME assembly J34 (➡ P46)
CN34
KPE4
MUTE.AC
C1013 4.7/50
C1014 4.7/50
R1011 100.0k
R1012 100.0k
R1013 2.2k
R1014 2.2k
AKB1126
R1021 1.0k
R1022 1.0k
R1023 1.0k
R98 2.2k 1/8W
R97 2.2k 1/8W
R99 1.0k 1/8W
Q98 2SC2878
Q97 2SC2878
Q99 XDA124ES
Q97-99 : MUTE
To AUDIO FUNCTION assembly J33 (➡ P38)
-12V
D.GND
+12V
DATA
CLOCK
STROBE2
CN33
KPE6

5.8 VOLUME ASSEMBLY

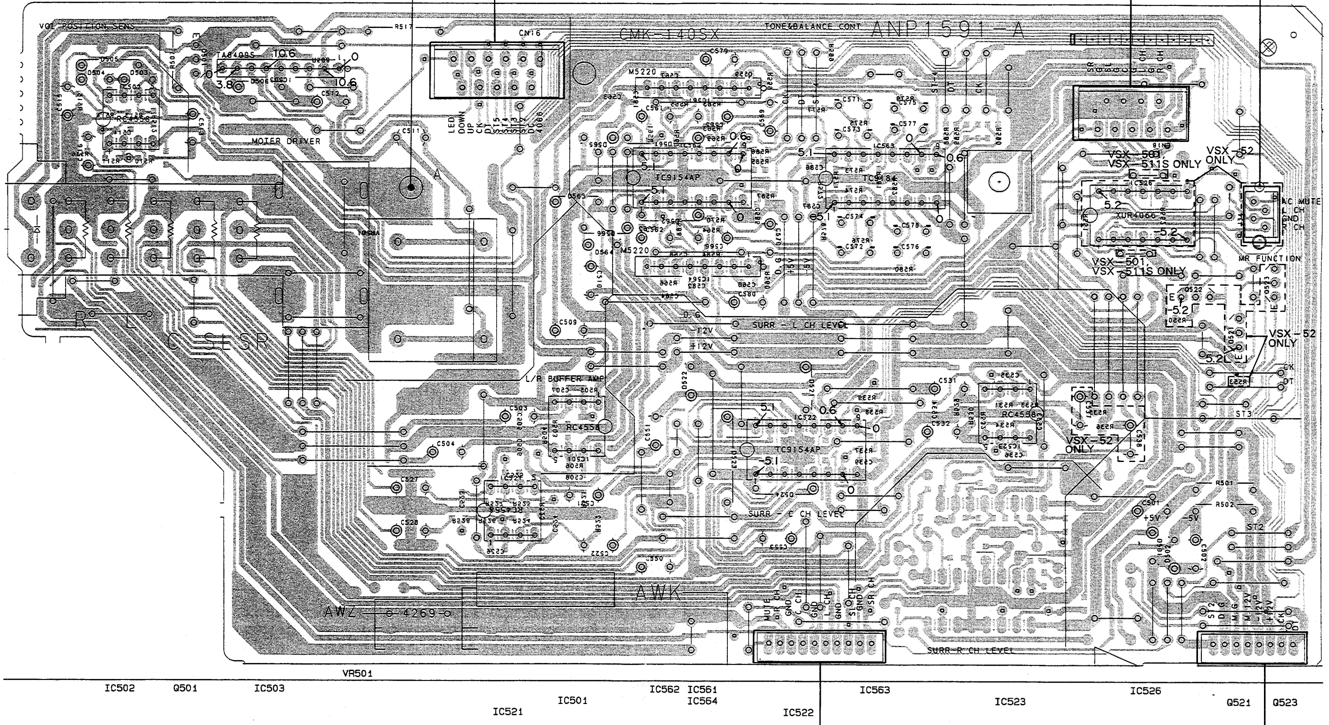

VOLUME assembly
(AWZ4269 : VSX-501, VSX-511S)
(AWZ4273 : VSX-52)
IC503 : VOLUME CONTROL
TA6409S
To FL. U-COM assembly J16 (➜ P57)
LED
DOWN
UP
CK
DT
ST-5
ST-4
ST-3
ST-2
DC
MR4066
CN16
: FRONT L
: CENTER
: REAR L
TONE & BALANCE CONT
IC502 : VOLUME POSITION SENSOR
VR501 : ACX1074
Q501 : VOLUME IND. DRIVE
XDC124ES
NJM4558LD
IC501 : AMP
IC561 (1/2) : AMP
IC561 (2/2) : BUFFER AMP
IC562 : BALANCE CONTROL
IC563 : TONE CONTROL
IC564 (1/2) : AMP
IC564 (2/2) : AMP
TC9154AP
TC9184P
NJM4560L
To CONNECTION assembly CN54 (➜ P14)
MUTE AC
R CH
GND
CENT CH
GND
L CH
GND
REAR L
GND
REAR R
CN54
FRONT L
CENTER
To CONNECTION assembly CN55 (➜ P14)
DA
CK
+12
-12
M+12
M.G
D.G
ST-2
CN55
DATA
CLK
+12V
-12V
+5V
-5V
To AMP assembly J18 (➜ P59)
FRONT R
GND
FRONT L
GND
CENTER
GND
REAR L
GND
REAR R
CN18
Any diode without part number indicates HSS104-02
CENTER
REAR L
IC521 : AMP
IC522 : REAR L CH CENTER BALANCE
REAR L CH
CENTER CH
IC523 : AMP
VSX-52 ONLY
JP : VSX-501, VSX-511S ONLY
IC526, Q521-523 : SURROUND MR SELECTOR
XBU4066B
XDA124ES
XDC124ES
To MR & S assembly CN34 (➜ P44)
MUTE AC
L
GND
R
J34
IC522, IC562 TC9154AP
IC563 TC9184P
CK
DATA
ST
GND
A
B
C
D
1
2
3
4
5
6

To FL. U-COM assembly J16 (➧ P56)

To MR & S assembly CN34 (➧ P42)

To AMP assembly J18 (➧ P61)

VOLUME ASSEMBLY
(AWZ4269 : VSX-501, VSX-511S)
(AWZ4273 : VSX-52)



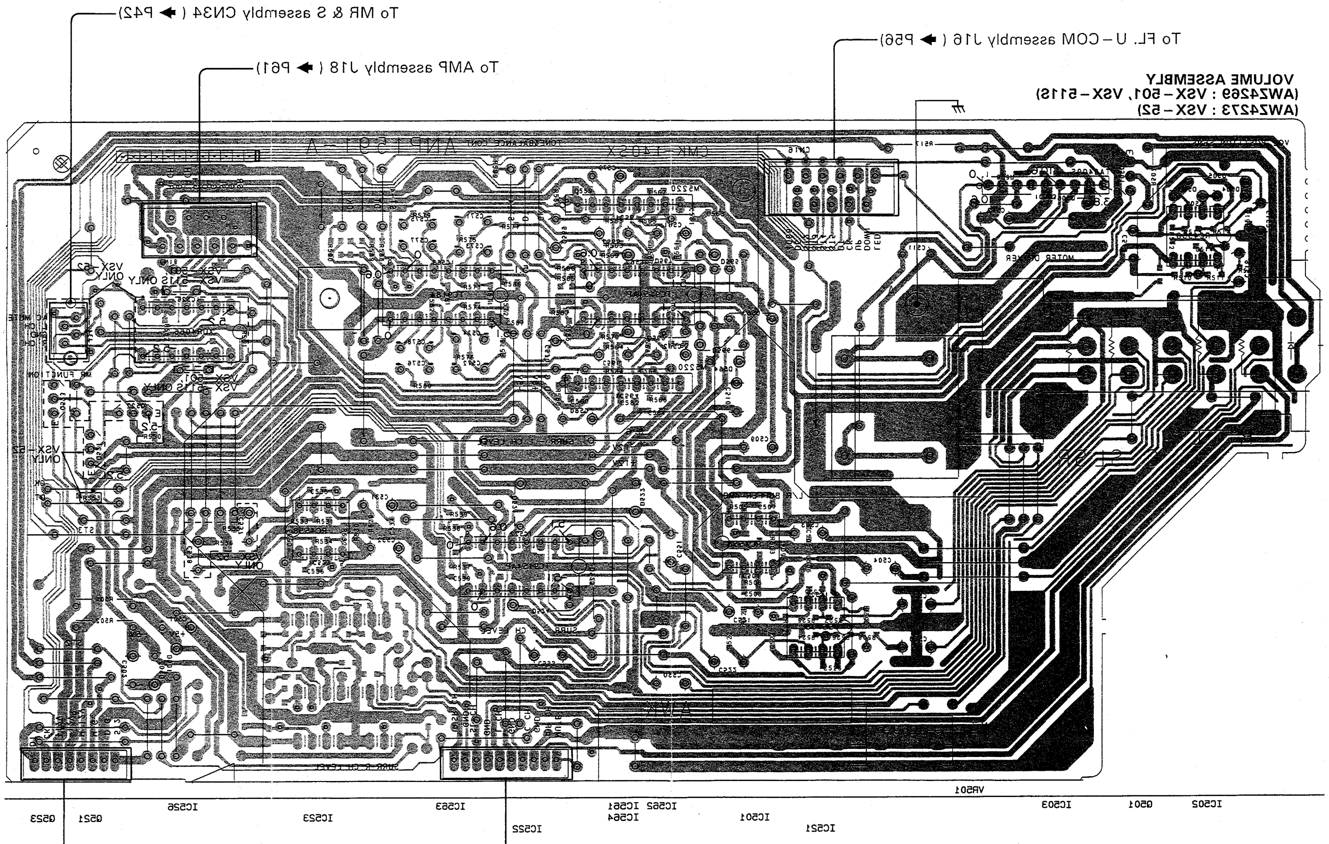
VOL POSITION SENS
TA8409S
MOTOR DRIVER
CN16
LED
DOWN
UP
CK
DT
ST5
ST4
ST3
ST2
4066
CMK-140SX
TONE&BALANCE CONT
ANP1591-A
M5220
TC9154AP
IC563
XUR4066
VSX-501, VSX-511S ONLY
VSX-52 ONLY
MR FUNCTION
AC MUTE
L CH
GND
R CH
SURR-L CH LEVEL
+12V
-12V
L/R BUFFER AMP
RC4558
SURR-C CH LEVEL
SURR-R CH LEVEL
AWK
AWZ-4269
R
L
C
SL
SR
VR501
IC502
Q501
IC503
IC521
IC501
IC562
IC561
IC564
IC522
IC563
IC523
IC526
Q521
Q523

This P. C. B connection diagram is viewed from the parts mounted side.

To CONNECTION assembly CN54 (➧ P17)

To CONNECTION assembly CN55 (➧ P16)

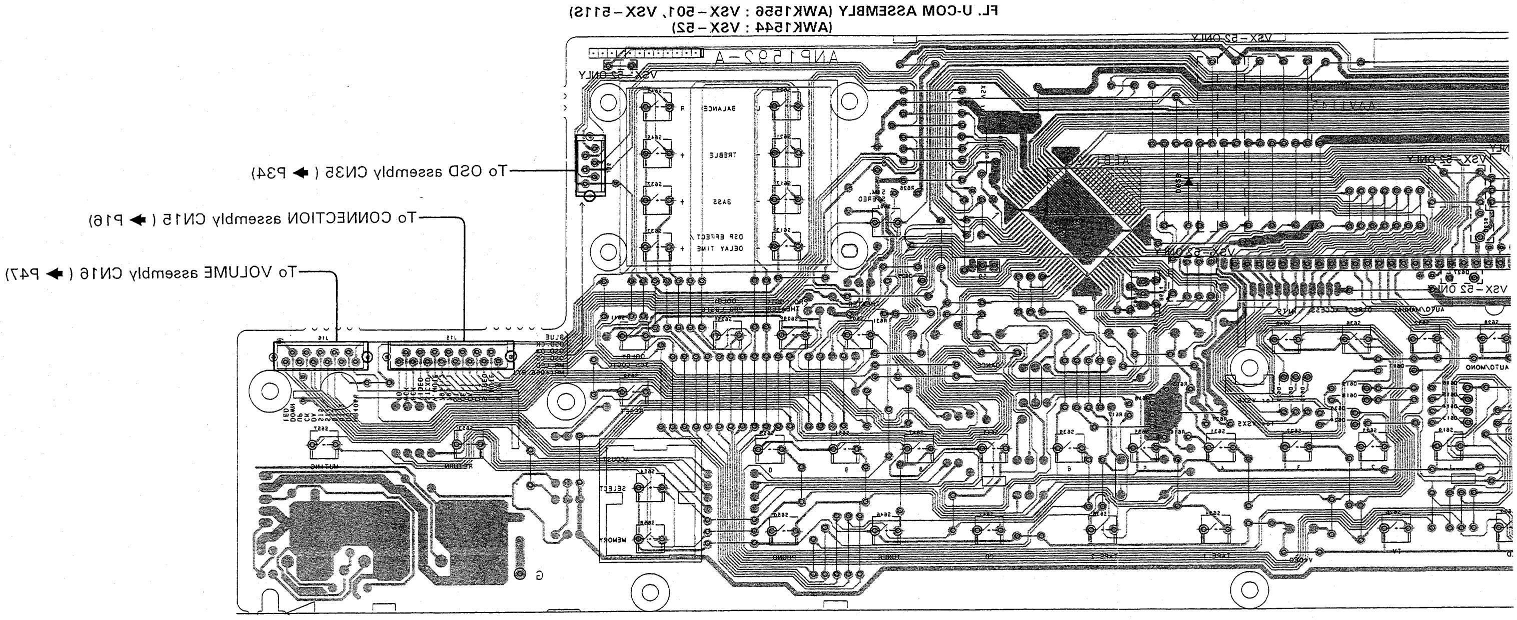
VOLUME ASSEMBLY
(AWZ4269 : VSX-501, VSX-511S)
(AWZ4273 : VSX-52)


To MR & S assembly CN34 (→ P42)
To AMP assembly J18 (→ P61)
To FL. U-COM assembly J16 (→ P56)
A
B
C
D
VR501
IC526
IC523
IC563
IC561 IC562
IC564
IC501
IC521
IC522
IC503
Q501
IC502
Q523
Q521

This P. C. B. connection diagram is viewed from the foil side.

To CONNECTION assembly CN55 (→ P16)
To CONNECTION assembly CN54 (→ P17)

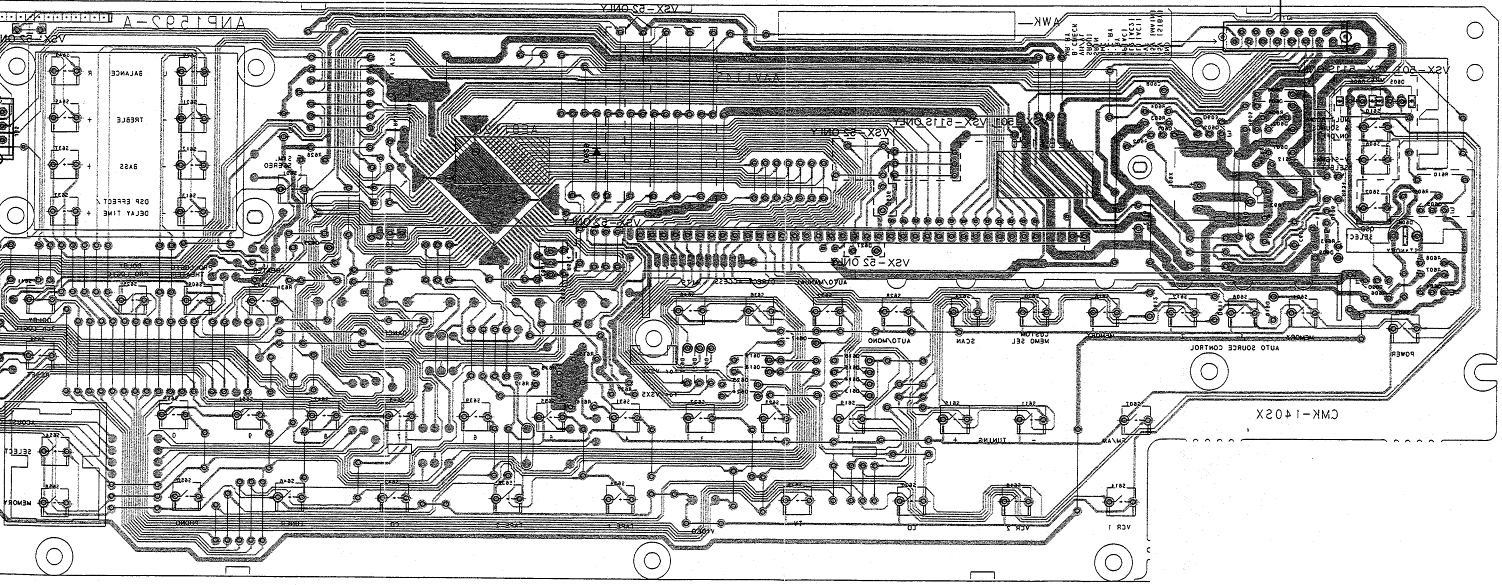
5.9 FL. U-COM ASSEMBLY



This P. C. B. connection diagram is viewed from the foil side.

FL U-COM ASSEMBLY (AWK1556 : VSX-501, VSX-51
(AWK1544 : VSX-52)

To POWER SUPPLY assembly CN17 (→ P74)


ANP1592-A
VSX-52 ONLY
BALANCE
TREBLE
BASS
DSP EFFECT
DELAY TIME
VSX-511S ONLY
VSX-501
AWK
SELECT
STANDBY
AUTO/MONO
SCAN
CUSTOM
MEMO SEL
AUTO SOURCE CONTROL
MEMORY
POWER
TUNING
CMK-140SX
PHONO
TUNER
CD
TAPE 2
TAPE 1
VIDEO
TV
LD
VCR 2
VCR 1

This P. C. B. connection diagram is viewed from the foil side.

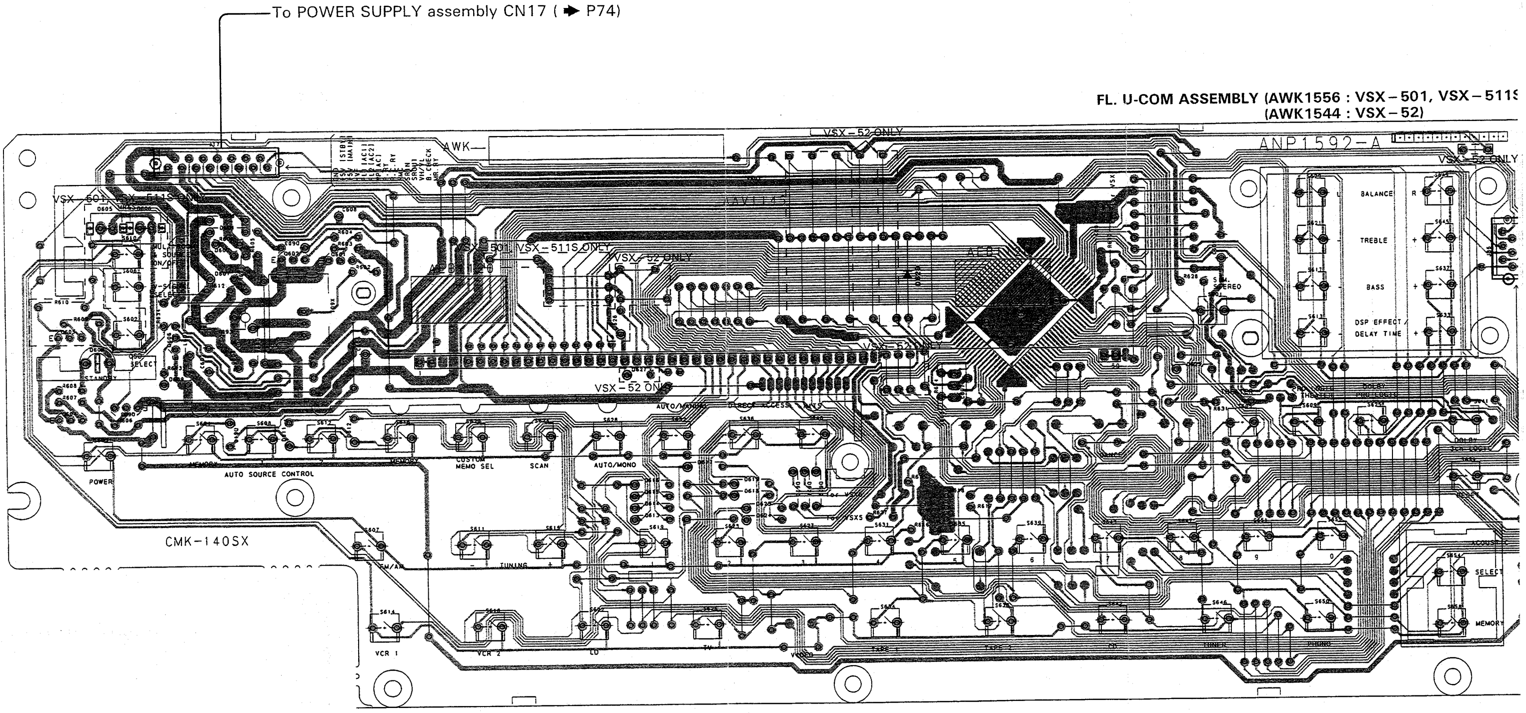
A

B

C

D

FL. U-COM ASSEMBLY (AWK1556 : VSX – 501, VSX – 511S
(AWK1544 : VSX – 52)


To POWER SUPPLY assembly CN17 (➔ P74)
ANP1592-A
AWK
VSX – 52 ONLY
VSX-501, VSX-511S ONLY
VSX-501, VSX-511S ONLY
VSX – 52 ONLY
VSX – 52 ONLY
VSX – 52 ONLY
VSX – 52 ONLY
STANDBY
MULTI & SOURCE ON/OFF
V-SIGNAL SELECT
POWER
AUTO SOURCE CONTROL
MEMORY
CUSTOM MEMO SEL
SCAN
AUTO/MONO
DIRECT ACCESS
TUNING
FM/AM
VCR 1
VCR 2
LD
TV
VIDEO
TAPE 1
TAPE 2
CD
TUNER
PHONO
BALANCE
TREBLE
BASS
DSP EFFECT / DELAY TIME
STEREO
DOLBY PRO LOGIC
RESET
ACOUSTIC
SELECT
MEMORY
CMK-140SX

This P. C. B connection diagram is viewed from the parts mounted side.

74)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎(double circles) shows negatine terminal.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203 ◎	D203	Diode
R237	R237	Resistor
C513 ◎	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

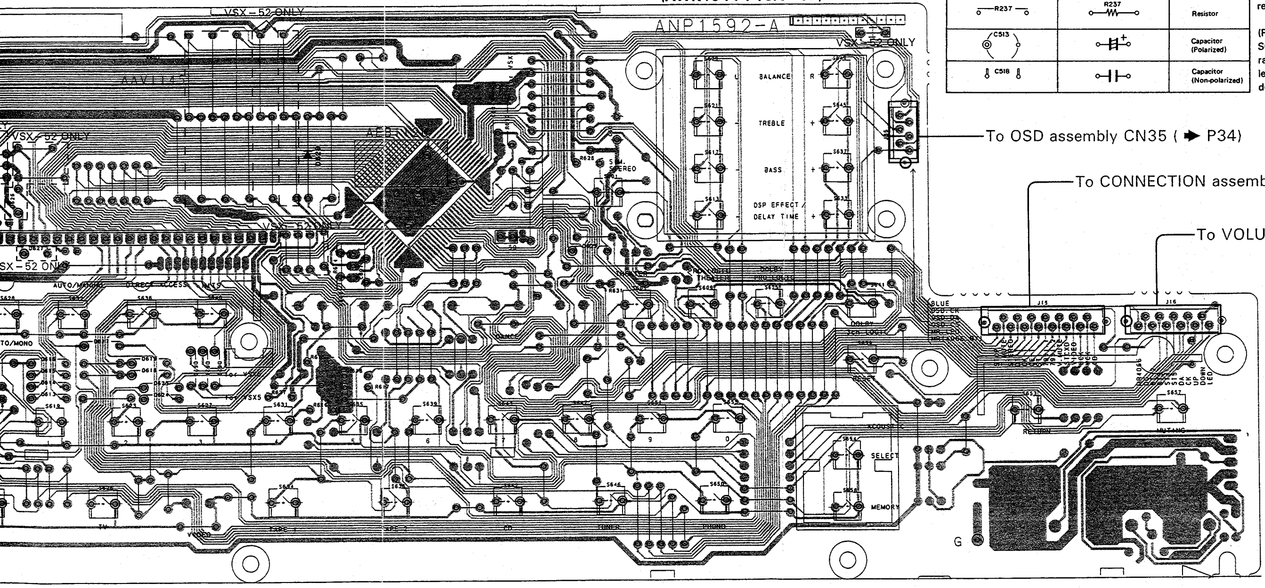
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)
Fuse symbols (Fast Operating Fuse) and/or (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible (Fusible de type rapide) et/ou (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.

FL. U-COM ASSEMBLY (AWK1556 : VSX-501, VSX-511S)
(AWK1544 : VSX-52)


VSX-52 ONLY
ANP1592-A
AAV1147
BALANCE
L
R
TREBLE
BASS
DSP EFFECT / DELAY TIME
STEREO
AUTO/MANUAL
ACCESS
DOLBY PRO LOGIC
RESET
SELECT
MEMORY
TV
VIDEO
TAPE 1
TAPE 2
CD
TUNER
PHONO
J15
J16
BLUE
RETURN
MUTING
G

To OSD assembly CN35 (➡ P34)

To CONNECTION assembly CN15 (➡ P16)

To VOLUME assembly CN16 (➡ P47)

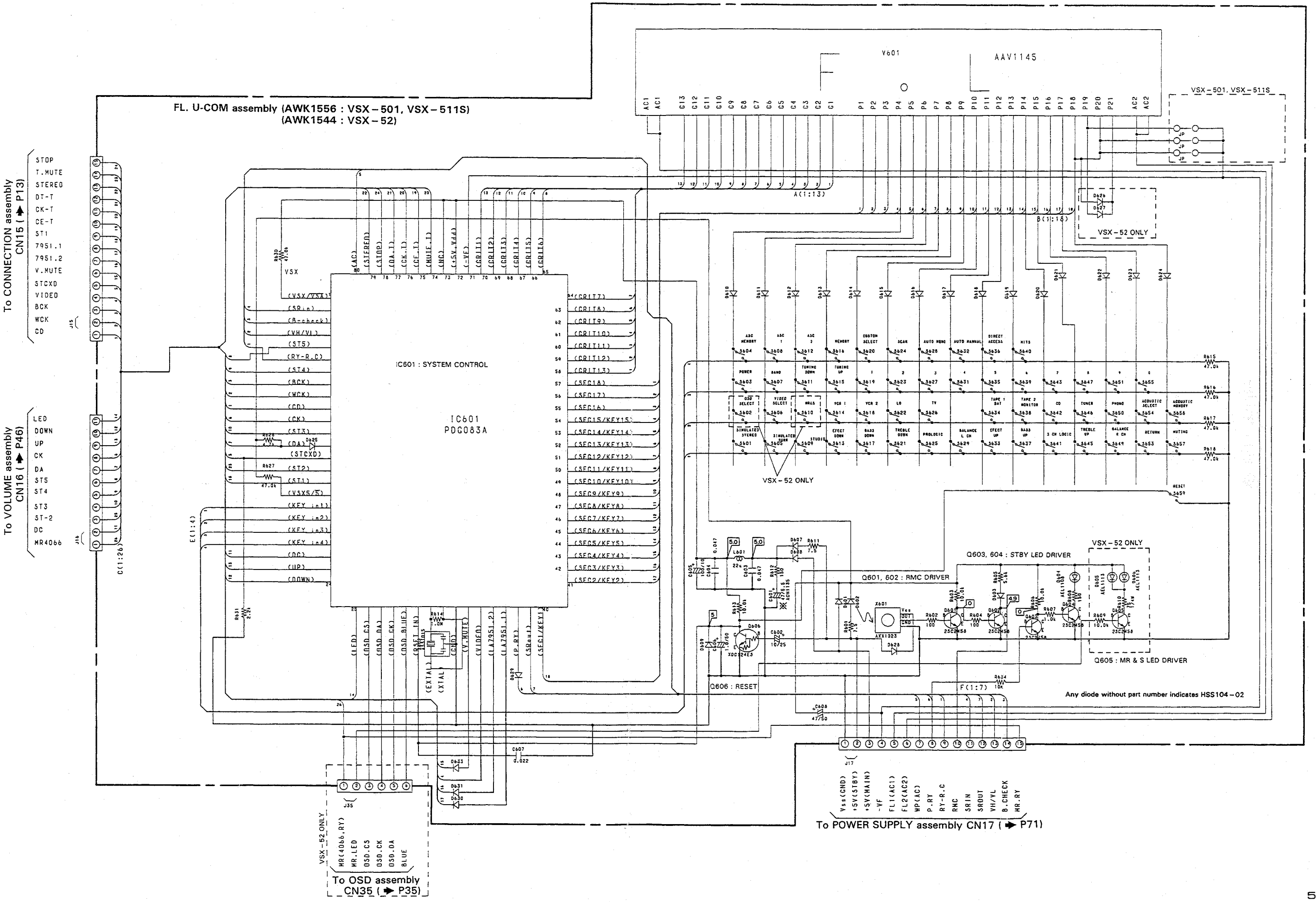
A

B

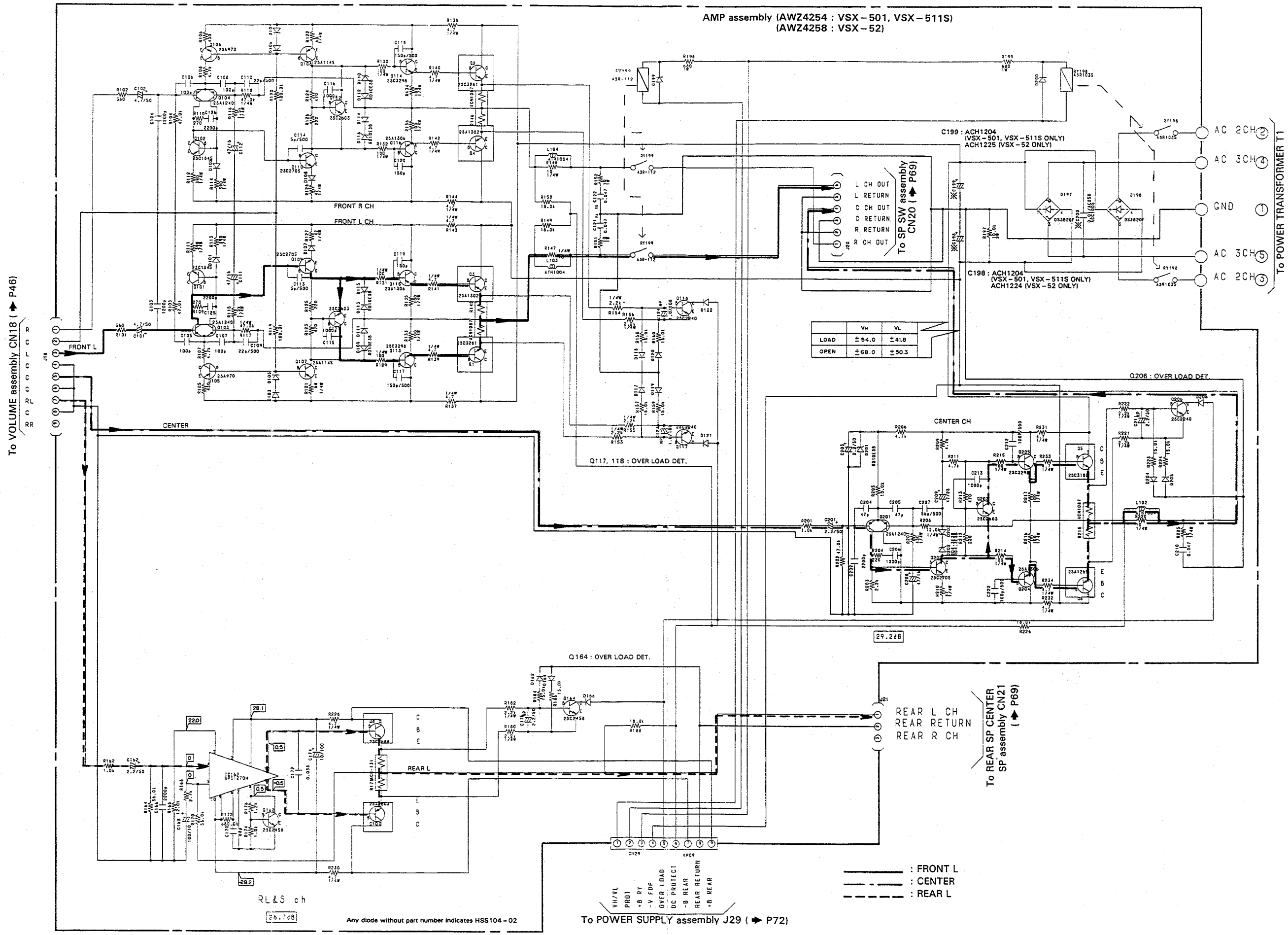
C

D

This P. C. B connection diagram is viewed from the parts mounted side.


1
2
3
4
5
6
A
B
C
D
FL. U-COM assembly (AWK1556 : VSX-501, VSX-511S)
(AWK1544 : VSX-52)
V601
AAV1145
VSX-501, VSX-511S
VSX-52 ONLY
A(1:13)
B(1:18)
To CONNECTION assembly CN15 (➡ P13)
STOP
T.MUTE
STEREO
DT-T
CK-T
CE-T
ST1
7951.1
7951.2
V.MUTE
STCXD
VIDEO
BCK
WCK
CD
J15
To VOLUME assembly CN16 (➡ P46)
LED
DOWN
UP
CK
DA
ST5
ST4
ST3
ST-2
DC
MR4066
J16
C(1:26)
E(1:4)
IC601 : SYSTEM CONTROL
IC601
PDG083A
(VSX/VSA)
(SRin)
(B-check)
(VH/VL)
(ST5)
(RY-R.C)
(ST4)
(BCK)
(WCK)
(CD)
(CK)
(ST3)
(DA)
(STCXD)
(ST2)
(ST1)
(VSX5/5)
(KEY in1)
(KEY in2)
(KEY in3)
(KEY in4)
(DC)
(UP)
(DOWN)
(AC)
(STEREO)
(STOP)
(DA.T)
(CK.T)
(CE.T)
(MUTE.T)
(NC)
(+5V.Vdd)
(-VF)
(GRIT1)
(GRIT2)
(GRIT3)
(GRIT4)
(GRIT5)
(GRIT6)
(GRIT7)
(GRIT8)
(GRIT9)
(GRIT10)
(GRIT11)
(GRIT12)
(GRIT13)
(SEG18)
(SEG17)
(SEG16)
(SEG15/KEY15)
(SEG14/KEY14)
(SEG13/KEY13)
(SEG12/KEY12)
(SEG11/KEY11)
(SEG10/KEY10)
(SEG9/KEY9)
(SEG8/KEY8)
(SEG7/KEY7)
(SEG6/KEY6)
(SEG5/KEY5)
(SEG4/KEY4)
(SEG3/KEY3)
(SEG2/KEY2)
(LED)
(OSD.CS)
(OSD.DA)
(OSD.CK)
(OSD.BLUE)
(RESET IN)
(EXTAL)
(XTAL)
(GND)
(V.MUTE)
(LA7951.2)
(LA7951.1)
(P.RY)
(SRout)
(SEG1/KEY1)
VSX
R630 47.0k
R626
R627 47.0k
D625
R631 2.2k
R614
D629
D633
D631
D630
C607 0.022
ASC MEMORY
ASC 1
ASC 2
MEMORY
CUSTOM SELECT
SCAN
AUTO MONO
AUTO MANUAL
DIRECT ACCESS
HITS
POWER
BAND
TUNING DOWN
TUNING UP
1
2
3
4
5
6
7
8
9
0
OSD SELECT
VIDEO SELECT
MR&S
VCR 1
VCR 2
LD
TV
TAPE 1 DAT
TAPE 2 MONITOR
CD
TUNER
PHONO
ACOUSTIC SELECT
ACOUSTIC MEMORY
SIMULATED STEREO
SIMULATED SURR
STUDIO
EFECT DOWN
BASS DOWN
TREBLE DOWN
PROLOGIC
BALANCE L CH
EFECT UP
BASS UP
3 CH LOGIC
TREBLE UP
BALANCE R CH
RETURN
MUTING
RESET
R615 47.0k
R616 47.0k
R617 47.0k
R618 47.0k
VSX-52 ONLY
Q603, 604 : STBY LED DRIVER
Q601, 602 : RMC DRIVER
Q605 : MR & S LED DRIVER
Q606 : RESET
X601
AXX1023
L601
C604
C605
C603
C601
C602
C606
D607
D608
R611
R612
R613
D609
Q606
XDC124E3
D628
R601
R602
R603
R604
R605
R606
R607
R608
R609
R610
Q601
Q602
Q603
Q604
Q605
2SC2458
D604
D605
D606
AEL1113
R634 10k
F(1:7)
C608 47/50
Any diode without part number indicates HSS104-02
J17
Vss(GND)
+5V(STBY)
+5V(MAIN)
-VF
FL1(AC1)
FL2(AC2)
WP(AC)
P.RY
RY-R.C
RMC
SRIN
SROUT
VH/VL
B.CHECK
MR.RY
To POWER SUPPLY assembly CN17 (➡ P71)
J35
VSX-52 ONLY
MR(4066,RY)
MR.LED
OSD.CS
OSD.CK
OSD.DA
BLUE
To OSD assembly CN35 (➡ P35)

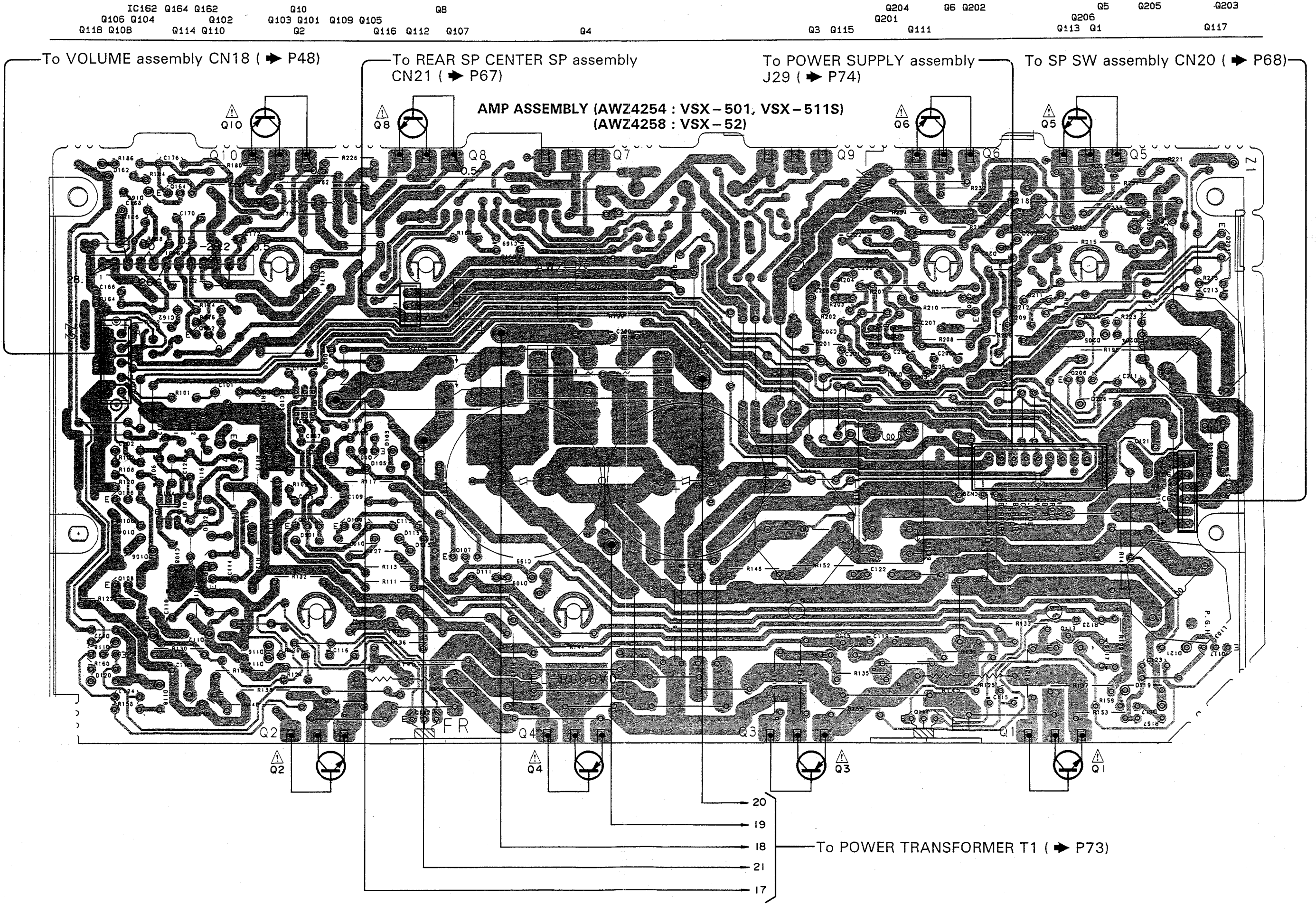
5.10 AMP ASSEMBLY


AMP assembly (AWZ4254 : VSX-501, VSX-511S)
(AWZ4258 : VSX-52)
FRONT R CH
FRONT L CH
FRONT L
CENTER
CENTER CH
REAR L
RL&S ch
Q117, 118 : OVER LOAD DET.
Q164 : OVER LOAD DET.
Q206 : OVER LOAD DET.
C199 : ACH1204
(VSX-501, VSX-511S ONLY)
ACH1225 (VSX-52 ONLY)
C198 : ACH1204
(VSX-501, VSX-511S ONLY)
ACH1224 (VSX-52 ONLY)
AC 2CH ②
AC 3CH ④
GND ①
AC 3CH ⑤
AC 2CH ③
To POWER TRANSFORMER T1
L CH OUT
L RETURN
C CH OUT
C RETURN
R RETURN
R CH OUT
To SP SW assembly CN20 (➔ P69)
To VOLUME assembly CN18 (➔ P46)
REAR L CH
REAR RETURN
REAR R CH
To REAR SP CENTER SP assembly CN21 (➔ P69)
VH/VL
PROT
+B RY
-V FDP
OVER LOAD
DC PROTECT
-B REAR
REAR RETURN
+B REAR
To POWER SUPPLY assembly J29 (➔ P72)
22.0
28.1
0.5
28.2
26.7dB
29.2dB
Any diode without part number indicates HSS104-02

	VH	VL
LOAD	±54.0	±41.8
OPEN	±68.0	±50.3

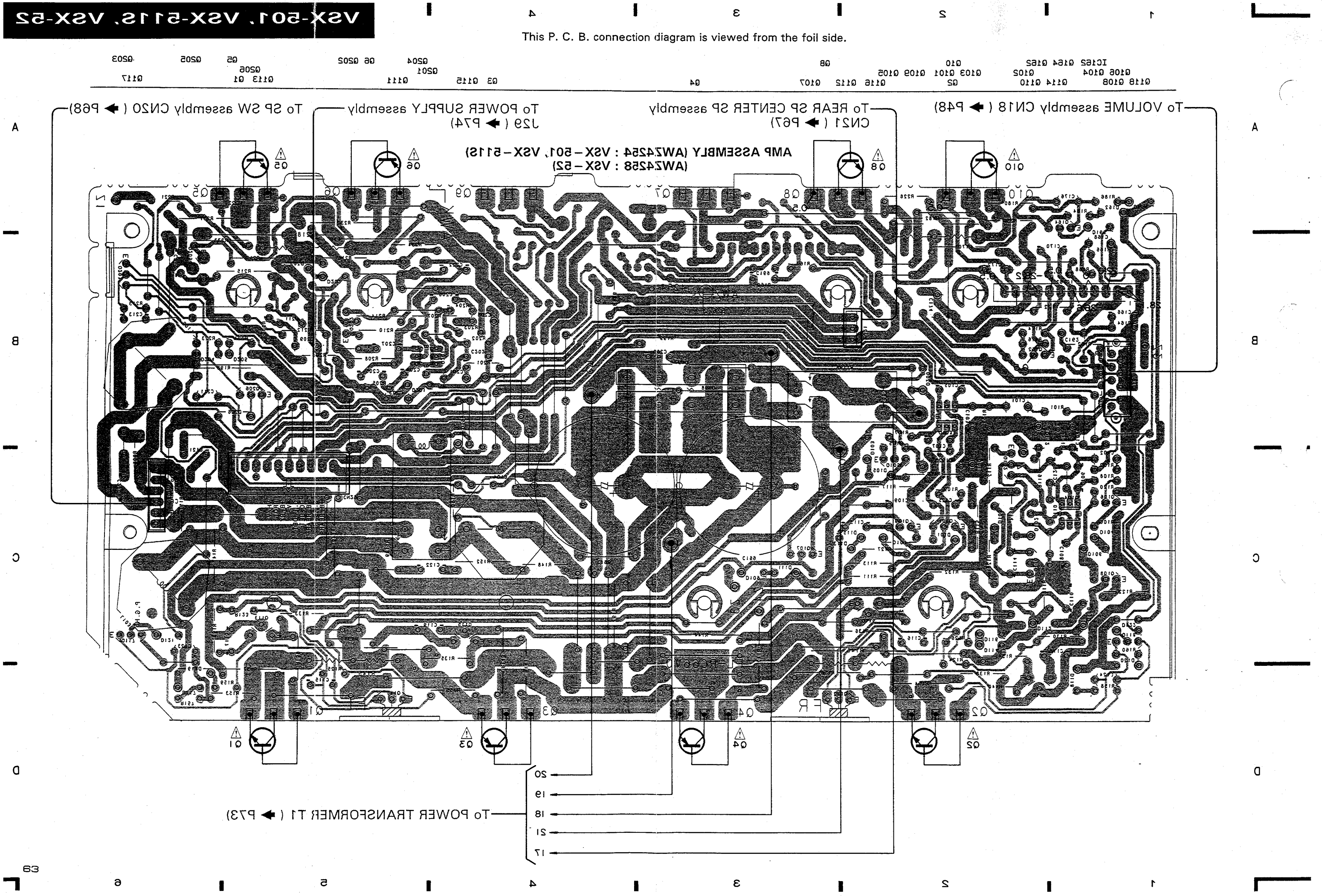
——————— : FRONT L
— · — · — : CENTER
– – – – – : REAR L

This P. C. B connection diagram is viewed from the parts mounted side.

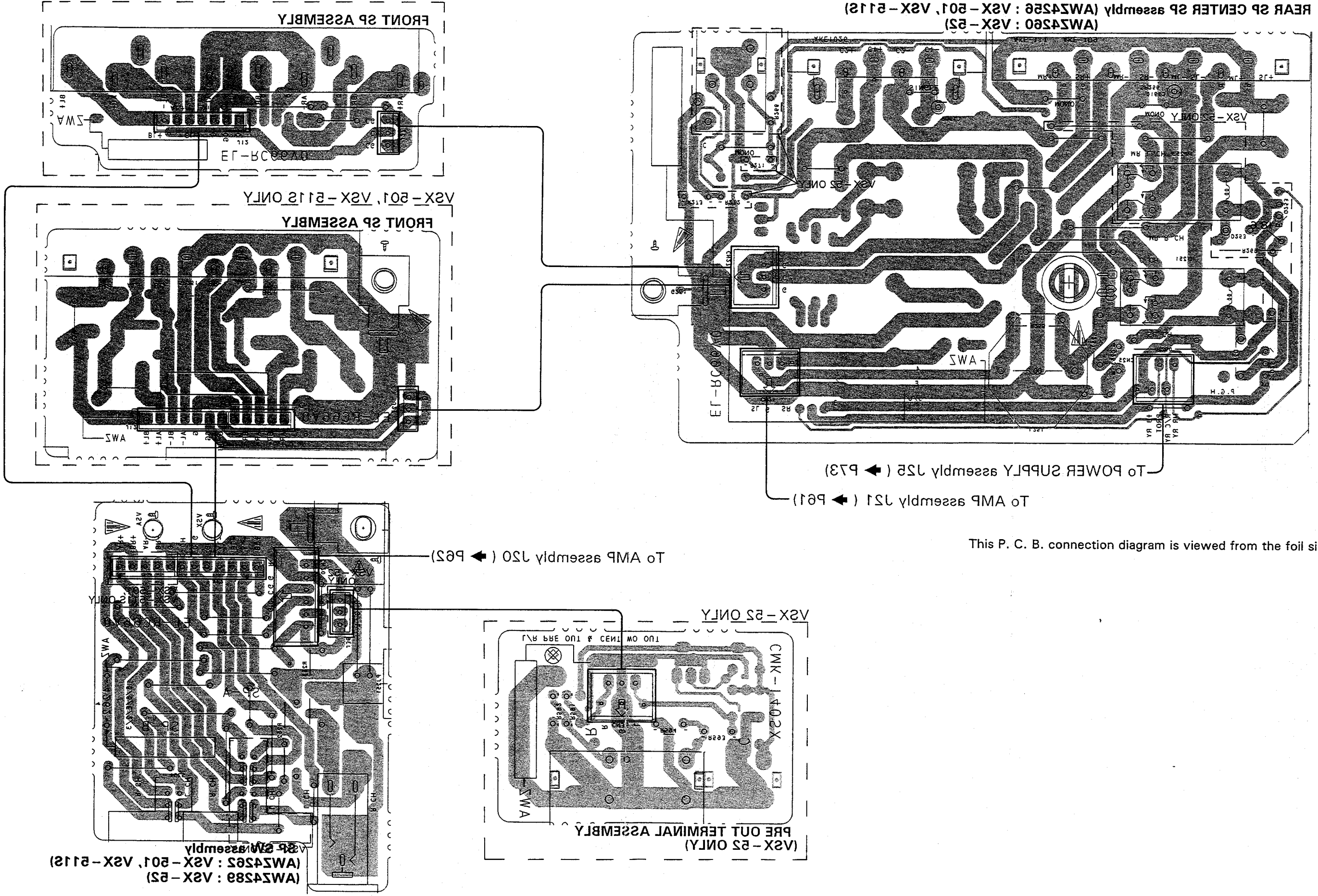

IC162 Q164 Q162
Q106 Q104
Q102
Q118 Q108
Q114 Q110
Q10
Q103 Q101 Q109 Q105
Q2
Q116 Q112 Q107
Q8
Q4
Q3 Q115
Q204
Q201
Q6 Q202
Q111
Q5
Q206
Q113 Q1
Q205
Q203
Q117
To VOLUME assembly CN18 (➧ P48)
To REAR SP CENTER SP assembly CN21 (➧ P67)
To POWER SUPPLY assembly J29 (➧ P74)
To SP SW assembly CN20 (➧ P68)
AMP ASSEMBLY (AWZ4254 : VSX-501, VSX-511S)
(AWZ4258 : VSX-52)
Q10
Q8
Q6
Q5
Q7
Q9
Z1
Q2
Q4
Q3
Q1
20
19
18
21
17
To POWER TRANSFORMER T1 (➧ P73)

This P. C. B. connection diagram is viewed from the foil side.

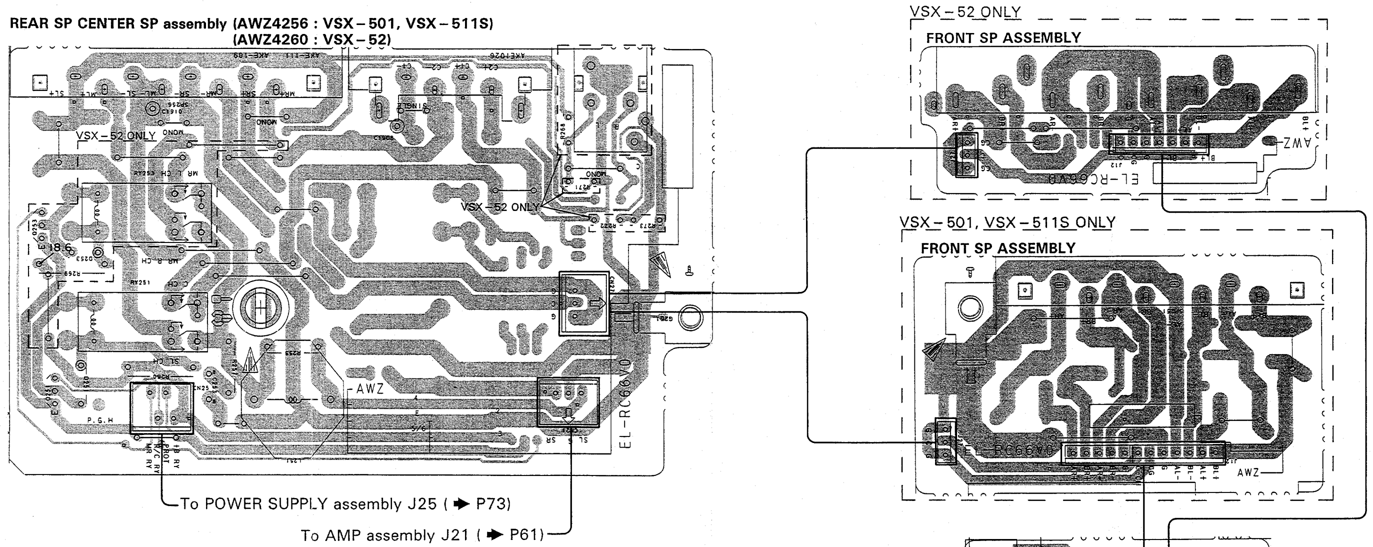
AMP ASSEMBLY (AWZ4254 : VSX-501, VSX-511S)
(AWZ4258 : VSX-52)

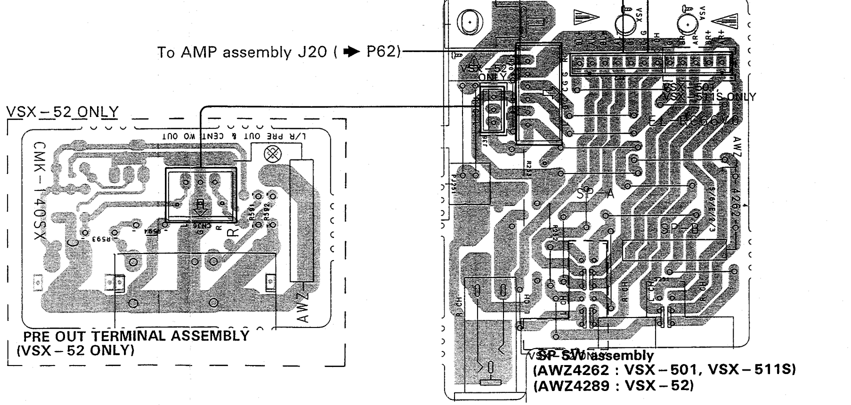

Q203
Q205
Q5
Q206
Q6 Q202
Q204
Q201
Q117
Q113 Q1
Q111
Q3 Q115
Q4
Q8
Q107
Q10
Q103 Q101 Q109 Q105
Q116 Q112
Q2
IC162 Q164 Q162
Q102
Q106 Q104
Q114 Q110
Q118 Q108
To SP SW assembly CN20 (➡ P68)
To POWER SUPPLY assembly J29 (➡ P74)
To REAR SP CENTER SP assembly CN21 (➡ P67)
To VOLUME assembly CN18 (➡ P48)
Q5
Q6
Q8
Q10
Q1
Q3
Q4
Q2
To POWER TRANSFORMER T1 (➡ P73)
20
19
18
21
17
A
B
C
D
1
2
3
4
5
6

5.11 SP SW ASSEMBLY, FRONT SP ASSEMBLY, PRE OUT TERMINAL ASSEMBLY AND REAR SP CENTER SP ASSEMBLY


VSX-52 ONLY
FRONT SP ASSEMBLY
VSX-501, VSX-511S ONLY
FRONT SP ASSEMBLY
REAR SP CENTER SP assembly (AWZ4256 : VSX-501, VSX-511S)
(AWZ4260 : VSX-52)
VSX-52 ONLY
AWZ
To POWER SUPPLY assembly J25 (➜ P73)
To AMP assembly J21 (➜ P61)
To AMP assembly J20 (➜ P62)
VSX-52 ONLY
L/R PRE OUT
CENT WO OUT
PRE OUT TERMINAL ASSEMBLY
(VSX-52 ONLY)
SP SW assembly
(AWZ4262 : VSX-501, VSX-511S)
(AWZ4289 : VSX-52)

This P. C. B. connection diagram is viewed from the foil side.


REAR SP CENTER SP assembly (AWZ4256 : VSX-501, VSX-511S)
(AWZ4260 : VSX-52)
VSX-52 ONLY
VSX-52 ONLY
MONO
SINGLE
RY253
RY251
MR L CH
MR R CH
C CH
SL CH
P.S.H
AWZ
EL-RC66V0
CN25
SL
SR
VSX-52 ONLY
FRONT SP ASSEMBLY
AWZ
EL-RC66V0
VSX-501, VSX-511S ONLY
FRONT SP ASSEMBLY
AWZ
EL-RC66V0
To POWER SUPPLY assembly J25 (➜ P73)
To AMP assembly J21 (➜ P61)


To AMP assembly J20 (➜ P62)
VSX-52 ONLY
VSX-52 ONLY
L/R PRE OUT & CENT WO OUT
CMK-140SX
L
R
AWZ
PRE OUT TERMINAL ASSEMBLY
(VSX-52 ONLY)
VSX-501, VSX-511S ONLY
EL-RC66V0
SP A
SP B
AWZ4262
SP SW assembly
(AWZ4262 : VSX-501, VSX-511S)
(AWZ4289 : VSX-52)

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

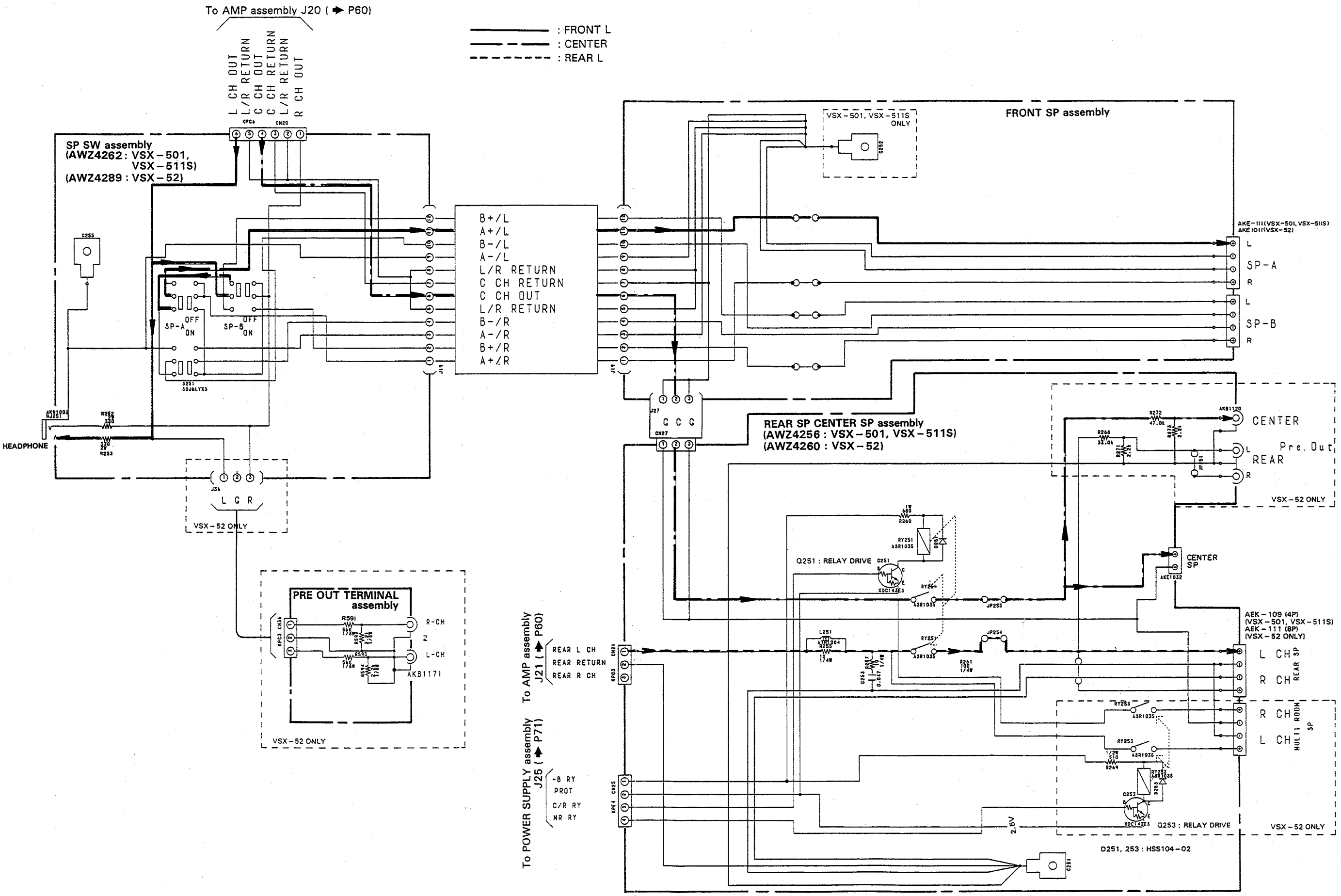
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203 ◎	D203	Diode
R237	R237	Resistor
C513 ◎	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

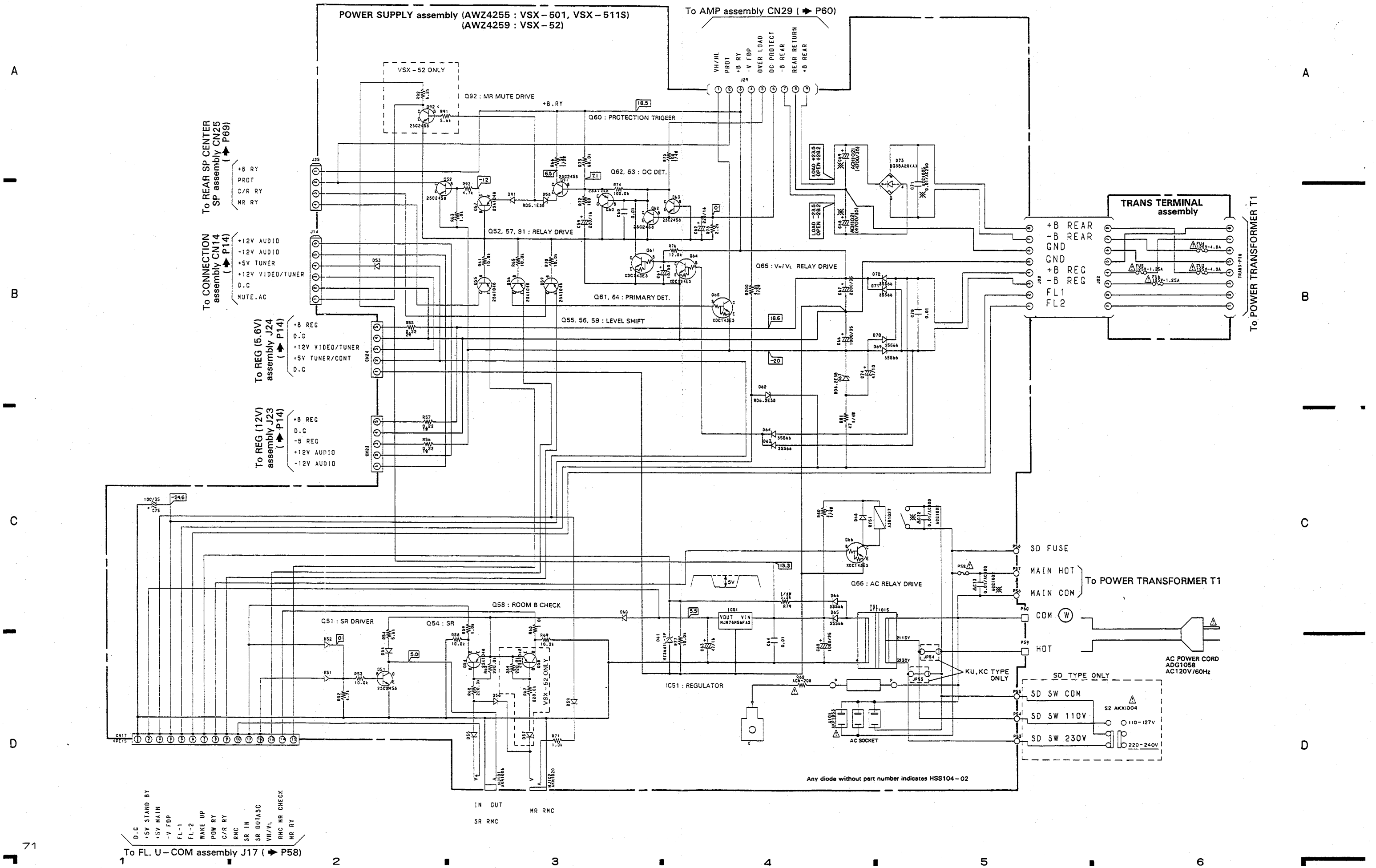
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)
Fuse symbols (Fast Operating Fuse) and/or (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

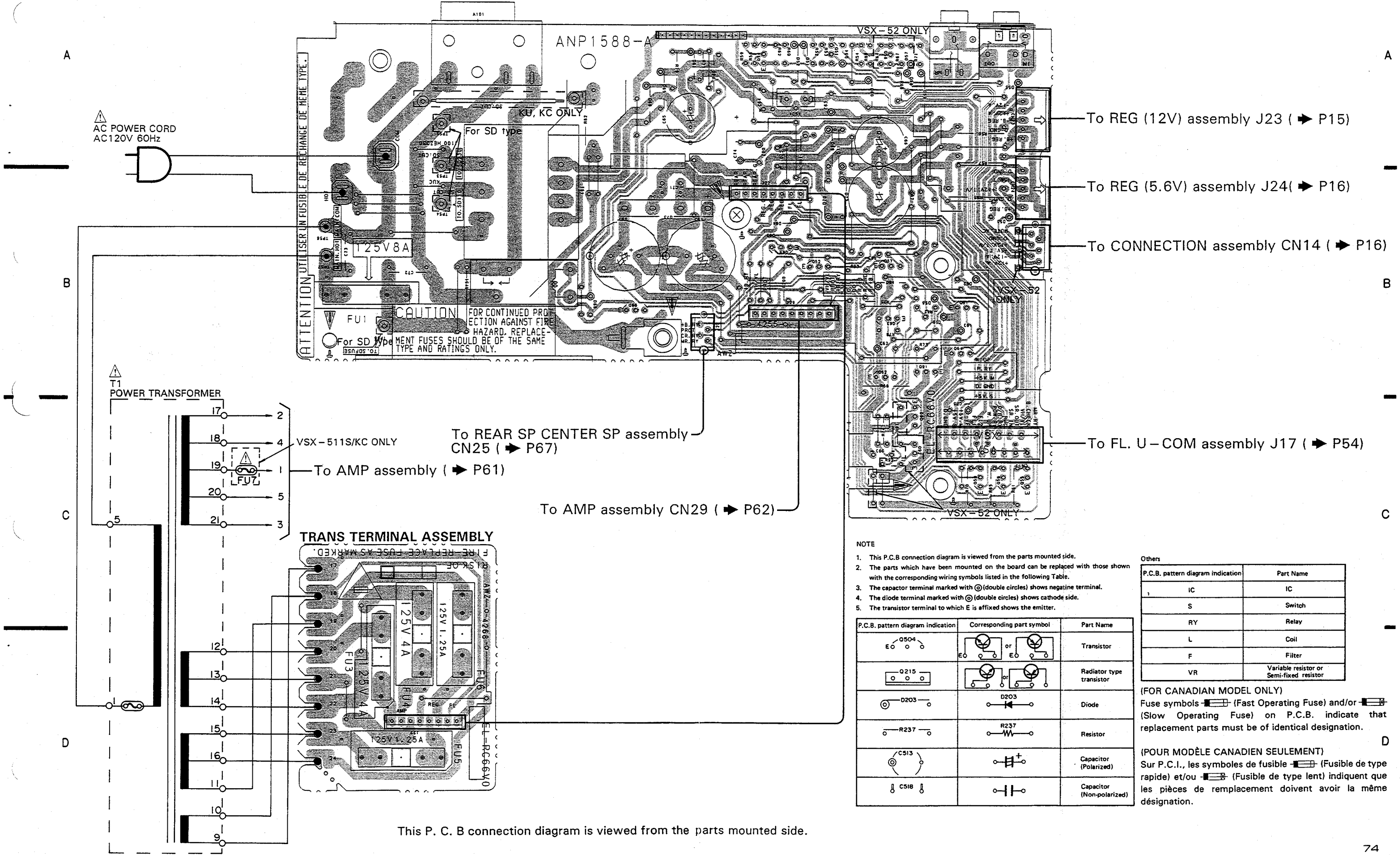
(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible (Fusible de type rapide) et/ou (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.


To AMP assembly J20 (➡ P60)
L CH OUT
L/R RETURN
C CH OUT
C CH RETURN
L/R RETURN
R CH OUT
KPC6
CN20
: FRONT L
: CENTER
: REAR L
SP SW assembly
(AWZ4262 : VSX-501,
VSX-511S)
(AWZ4289 : VSX-52)
C253
SP-A
SP-B
OFF
ON
S251
SUJ6LYX3
B+/L
A+/L
B-/L
A-/L
L/R RETURN
C CH RETURN
C CH OUT
L/R RETURN
B-/R
A-/R
B+/R
A+/R
J19
AKN1002
JA251
R252
330
2W
R253
HEADPHONE
J36
L G R
VSX-52 ONLY
PRE OUT TERMINAL
assembly
KPC3 CN36
R591
56k
1/8W
R592
2.2k
1/8W
R593
56k
1/8W
R594
2.2k
1/8W
PJ
R-CH
L-CH
AKB1171
VSX-52 ONLY
To AMP assembly
J21 (➡ P60)
REAR L CH
REAR RETURN
REAR R CH
CN21
KPC3
To POWER SUPPLY assembly
J25 (➡ P71)
+B RY
PROT
C/R RY
MR RY
CN25
KPE4
FRONT SP assembly
VSX-501, VSX-511S
ONLY
C252
AKE-111(VSX-501, VSX-511S)
AKE101(VSX-52)
L
SP-A
R
L
SP-B
R
J27
G C G
CN27
REAR SP CENTER SP assembly
(AWZ4256 : VSX-501, VSX-511S)
(AWZ4260 : VSX-52)
R272
47.0k
R273
2.2k
R268
33.0k
R271
2.2k
JP151
AKB1120
CENTER
L
REAR
R
Pre. Out
VSX-52 ONLY
1W
680
R260
RY251
ASR1035
D251
Q251 : RELAY DRIVE
Q251
B
C
E
XDC143E3
RY254
ASR1035
JP253
CENTER
SP
AKE1032
L251
ATH1004
R255
10
1/4W
R267
10
1/4W
C253
0.047
RY251
ASR1035
JP254
R261
100
1/4W
AEK-109 (4P)
(VSX-501, VSX-511S)
AEK-111 (8P)
(VSX-52 ONLY)
L CH
R CH
REAR SP
R CH
L CH
MULTI ROOM SP
RY253
ASR1035
RY253
ASR1035
1/2W
510
R269
RY253
ASR1035
D253
Q253
XDC143E3
Q253 : RELAY DRIVE
VSX-52 ONLY
2.5V
D251, 253 : HSS104-02
C251

5.12 POWER SUPPLY ASSEMBLY AND TRANS TERMINAL ASSEMBLY


POWER SUPPLY assembly (AWZ4255 : VSX-501, VSX-511S)
(AWZ4259 : VSX-52)
To AMP assembly CN29 (➔ P60)
VH/VL
PROT
+B RY
-V FDP
OVER LOAD
DC PROTECT
-B REAR
REAR RETURN
+B REAR
VSX-52 ONLY
Q92 : MR MUTE DRIVE
+B.RY
Q60 : PROTECTION TRIGEER
Q62, 63 : DC DET.
Q52, 57, 91 : RELAY DRIVE
Q61, 64 : PRIMARY DET.
Q55, 56, 59 : LEVEL SHIFT
Q65 : VH/VL RELAY DRIVE
To REAR SP CENTER SP assembly CN25 (➔ P69)
+B RY
PROT
C/R RY
MR RY
To CONNECTION assembly CN14 (➔ P14)
+12V AUDIO
-12V AUDIO
+5V TUNER
+12V VIDEO/TUNER
D.C
MUTE.AC
To REG (5.6V) assembly J24 (➔ P14)
+B REG
D.C
+12V VIDEO/TUNER
+5V TUNER/CONT
D.C
To REG (12V) assembly J23 (➔ P14)
+B REG
D.C
-B REG
+12V AUDIO
-12V AUDIO
LOAD ≥235 OPEN ≥282
LOAD -235 OPEN -282
TRANS TERMINAL assembly
+B REAR
-B REAR
GND
GND
+B REG
-B REG
FL1
FL2
To POWER TRANSFORMER T1
Q66 : AC RELAY DRIVE
SD FUSE
MAIN HOT
MAIN COM
To POWER TRANSFORMER T1
COM
HOT
AC POWER CORD ADG1058 AC120V/60Hz
KU, KC TYPE ONLY
IC51 : REGULATOR
VOUT VIN
SD TYPE ONLY
SD SW COM
SD SW 110V
SD SW 230V
S2 AKX1004
110-127V
220-240V
AC SOCKET
Any diode without part number indicates HSS104-02
Q58 : ROOM B CHECK
Q51 : SR DRIVER
Q54 : SR
VSX-52 ONLY
IN OUT
SR RMC
MR RMC
D.C
+5V STAND BY
+5V MAIN
-V FDP
FL-1
FL-2
WAKE UP
POW RY
C/R RY
RMC
SR IN
SR OUT/ASC
VH/VL
RMC MR CHECK
MR RY
To FL. U-COM assembly J17 (➔ P58)
A
B
C
D
1
2
3
4
5
6

POWER SUPPLY ASSEMBLY
(AWZ4255 : VSX – 501, VSX – 511S)
(AWZ4259 : VSX – 52)


1
2
3
4
5
6
A
B
C
D
Q66
Q54 IC51 Q51
Q65 Q52
Q58
Q57 Q63
Q62 Q60 Q92 Q91
Q64 Q61
Q59 Q56 Q55
ANP1588-A
VSX – 52 ONLY
KU, KC ONLY
For SD type
T25V8A
FU1
For SD type
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.
CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
VSX – 52 ONLY
AWZ
VSX – 52 ONLY
AC POWER CORD
AC120V 60Hz
T1
POWER TRANSFORMER
17
18
19
20
21
12
13
14
15
16
11
10
9
2
4
1
5
3
5
1
FU7
VSX – 511S/KC ONLY
To AMP assembly (➧ P61)
To REAR SP CENTER SP assembly CN25 (➧ P67)
To AMP assembly CN29 (➧ P62)
To REG (12V) assembly J23 (➧ P15)
To REG (5.6V) assembly J24(➧ P16)
To CONNECTION assembly CN14 (➧ P16)
To FL. U – COM assembly J17 (➧ P54)
TRANS TERMINAL ASSEMBLY
FIRE REPLACE FUSE AS MARKED.
RISK OF
125V 4A
125V 1.25A
125V 4A
T25V1.25A
FU3
FU4
FU5
FU6
AWZ
EL-RC66V0

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.
3. The capactor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E Q504	E or E	Transistor
Q215	or	Radiator type transistor
◎ D203	D203	Diode
R237	R237	Resistor
◎ C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

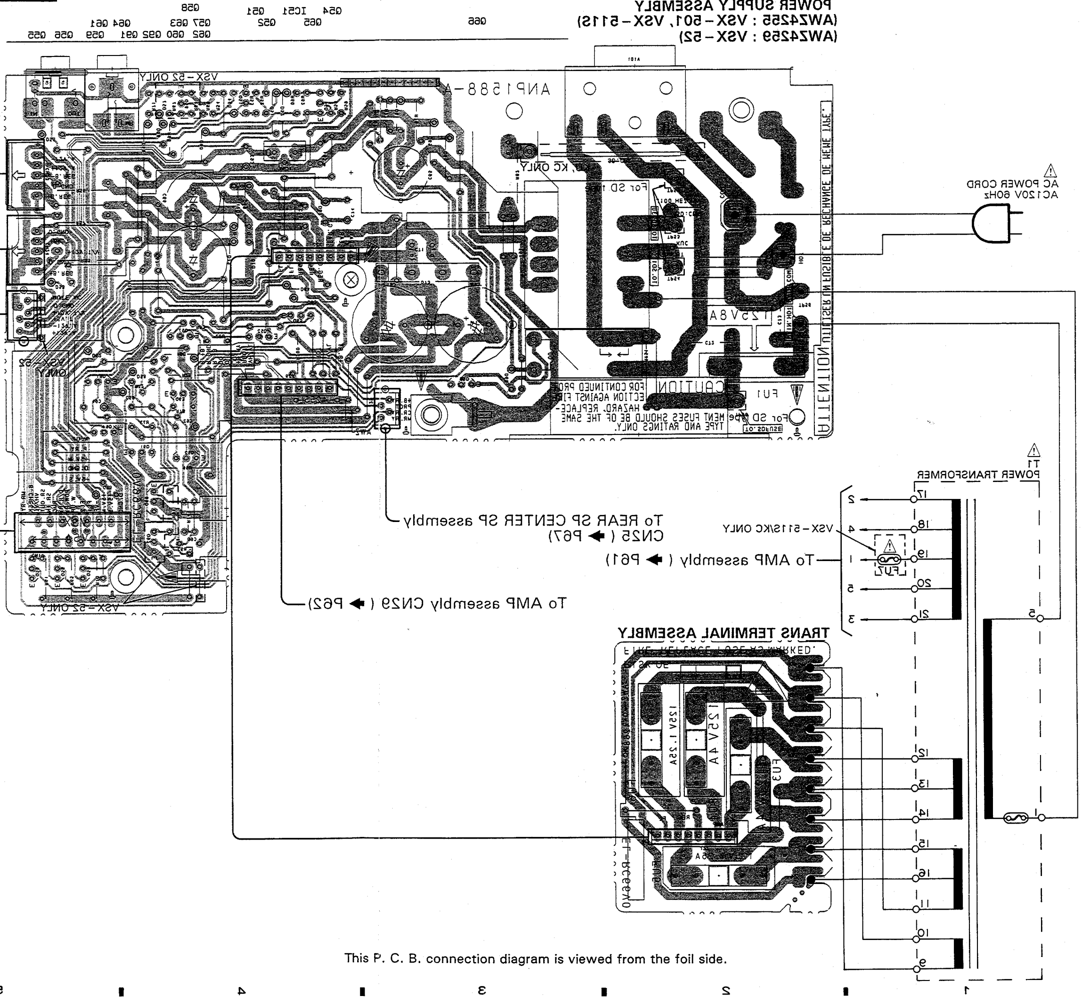
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

(FOR CANADIAN MODEL ONLY)
Fuse symbols (Fast Operating Fuse) and/or (Slow Operating Fuse) on P.C.B. indicate that replacement parts must be of identical designation.

(POUR MODÈLE CANADIEN SEULEMENT)
Sur P.C.I., les symboles de fusible (Fusible de type rapide) et/ou (Fusible de type lent) indiquent que les pièces de remplacement doivent avoir la même désignation.

POWER SUPPLY ASSEMBLY
(AWZ4255 : VSX-501, VSX-511S)
(AWZ4259 : VSX-52)


Q58
Q54 IC51 Q51
Q64 Q61
Q57 Q63
Q65 Q52
Q66
Q55 Q56 Q59 Q91 Q92 Q60 Q62
ANP1588-A
VSX-52 ONLY
KC ONLY
For SD type
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
FU1
125V8A
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE
To REG (12V) assembly J23 (→ P15)
To REG (5.6V) assembly J24 (→ P16)
To CONNECTION assembly CN14 (→ P16)
To FL. U-COM assembly J17 (→ P54)
To REAR SP CENTER SP assembly CN25 (→ P67)
To AMP assembly (→ P61)
To AMP assembly CN29 (→ P62)
AC POWER CORD
AC120V 60Hz
T1
POWER TRANSFORMER
VSX-511S/KC ONLY
FU2
17
18
19
20
21
2
4
1
5
3
5
1
12
13
14
15
16
11
10
9
TRANS TERMINAL ASSEMBLY
125V 1.25A
125V 4A
FU3
6A
1
2
3
4
5
6
A
B
C
D

This P. C. B. connection diagram is viewed from the foil side.

6. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560Ω → 56×10^1 → 561 .... RD1/8PM $\boxed{5}\,\boxed{6}\,\boxed{1}$ J
47kΩ → 47×10^3 → 473 .... RD1/4PS $\boxed{4}\,\boxed{7}\,\boxed{3}$ J
0.5Ω → 0R5 .... RN2H $\boxed{0}\,\boxed{R}\,\boxed{5}$ K
1Ω → 010 .... RS1P $\boxed{0}\,\boxed{1}\,\boxed{0}$ K

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ → 562×10^1 → 5621 .... RN1/4PC $\boxed{5}\,\boxed{6}\,\boxed{2}\,\boxed{1}$ F

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
◉		TUNER ASSEMBLY	AWE1140
◉		AMP ASSEMBLY	AWZ4254
◉		POWER SUPPLY ASSEMBLY	AWZ4255
◉		REAR SP CENTER SP ASSEMBLY	AWZ4256
NSP		FRONT SP ASSEMBLY	AWZ4257
◉		SP SW ASSEMBLY	AWZ4262
NSP		TRANS TERMINAL ASSEMBLY	AWZ4268
◉		AUDIO FUNCTION ASSEMBLY	AWZ4263
◉		A/V FUNCTION ASSEMBLY	AWZ4264
◉		CONNECTION ASSEMBLY	AWZ4265
◉		REG (12V) ASSEMBLY	AWZ4266
◉		REG (5.6V) ASSEMBLY	AWZ4267
◉		VOLUME ASSEMBLY	AWZ4269
◉		FL. U-COM ASSEMBLY	AWK1556
		DOL. PRO. MOD. ASSEMBLY	AXQ1009

TUNER ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC431	AM/FM IC	LA1265S
	IC451	MPX IC	AN7470P
	IC471	PLL IC	LM7001
	Q401	MOS-FET	2SK241
	Q402	TRANSISTOR	2SC2786
	Q403	TRANSISTOR	2SC2668
	Q405	N-FET	2SK161
	Q421	TRANSISTOR	2SC2668
	Q451	TRANSISTOR	2SC2603
	Q452, 453	TRANSISTOR	2SC1740S
	Q454	TRANSISTOR	2SA933S
	Q471	N-FET	2SK246
	Q472	TRANSISTOR	2SC1740SLN
	Q473, 474	TRANSISTOR	RN2201
	D401-403	VARI-CAP DIODE	1SV147
	D431-435	DIODE	1SS252

COILS & TRANSFORMER

Mark	No.	Description	Parts No.
	F421	CERAMIC FILTER	ATF-107
	F422	CERAMIC FILTER	ATF-119
	F431	CERAMIC FILTER	ATF-208
	L401	COIL	ATC1001
	L402	COIL	ATC1002
	L403	COIL	ATC1004
	L404	COIL	ATC1005
	L405	COIL	ATC1003
	L406, 407	AXIAL INDUCTOR	LAU2R2M
	L431	COIL	ATE-079
	T402	IF TRANSFORMER	ATE-063

CAPACITORS

Mark	No.	Description	Parts No.
	C400	CERAMIC CAPACITOR	CKDYF102Z50
	C401	CERAMIC CAPACITOR	CCDRH330J50
	C402	CERAMIC CAPACITOR	CCDRH390J50
	C403	CERAMIC CAPACITOR	CKPUYY103N16
	C404, 405	CERAMIC CAPACITOR	CCDRH330J50
	C406	CERAMIC CAPACITOR	CCDCH020C50
	C409	CERAMIC CAPACITOR	CKPUYB101K50
	C410-412	CERAMIC CAPACITOR	CKPUYY103N16
	C413	CERAMIC CAPACITOR	CCDCH150J50
	C414	CERAMIC CAPACITOR	CCDCH330J50
	C415	CERAMIC CAPACITOR	CCDCH080D50
	C416	CERAMIC CAPACITOR	CCDTH180J50
	C417	CERAMIC CAPACITOR	CCDCH010C50
	C418, 419	CERAMIC CAPACITOR	CKPUYY103N16
	C420	ELECT. CAPACITOR	CEAS100M50
	C421, 422	CERAMIC CAPACITOR	CKPUYY103N16
	C433	ELECT. CAPACITOR	CEAS4R7M50
	C435	CERAMIC CAPACITOR	CKCYF472Z50
	C436	CERAMIC CAPACITOR	CKCYX683M25
	C437	ELECT. CAPACITOR	CEAS100M50

Mark	No.	Description	Parts No.
	C438	ELECT. CAPACITOR	CEAS2R2M50
	C439, 440	CERAMIC CAPACITOR	CKCYF223Z50
	C441	AXIAL CAPACITOR	CKPUYF223Z25
	C442	ELECT. CAPACITOR	CEAS0R1M50
	C443	ELECT. CAPACITOR	CEAS3R3M50
	C444	CERAMIC CAPACITOR	CKPUYB331K50
	C445	AXIAL CAPACITOR	CCPUSL470J50
	C446, 447	MYLAR FILM CAPACITOR	CQMA561K50
	C451	ELECT. CAPACITOR	CEAS101M16
	C452	ELECT. CAPACITOR	CEANP4R7M35
	C453	CERAMIC CAPACITOR	CKCYF473Z50
	C454	CAPACITOR	ACE1039
	C455	ELECT. CAPACITOR	CEAS3R3M50
	C456	ELECT. CAPACITOR	CEAS1R5M50
	C457	ELECT. CAPACITOR	CEASR22M50
	C458	ELECT. CAPACITOR	CEAS470M16
	C459, 460	MYLAR FILM CAPACITOR	CQMA102J50
	C461, 462	ELECT. CAPACITOR	CEAS4R7M50
	C463, 464	ELECT. CAPACITOR	CEAS470M16
	C465	CERAMIC CAPACITOR	CKPUYY103N16
	C466	CERAMIC CAPACITOR	CCCSL121J50
	C468, 469	MYLAR FILM CAPACITOR	CQMA182J50
	C471	CERAMIC CAPACITOR	CKPUYY103N16
	C472	AXIAL CAPACITOR	CKPUYF223Z25
	C473	CERAMIC CAPACITOR	CKPUYY103N16
	C475	ELECT. CAPACITOR	CEAS100M50
	C476	CERAMIÇ CAPACITOR	CKPUYY103N16
	C477	CERAMIC CAPACITOR	CKCYF103Z50
	C478	AUDIO FILM CAPACITOR	CFTXA224J50
	C479	AXIAL CAPACITOR	CCPUSL220J50
	C480	CERAMIC CAPACITOR	CKPUYY103N16
	C481, 482	CERAMIC CAPACITOR	CCDCH150J50
	C483	CERAMIC CAPACITOR	CKPUYB101K50
	C484	ELECT. CAPACITOR	CEAS470M16
	C485	CERAMIC CAPACITOR	CKPUYY103N16

RESISTORS

Mark	No.	Description	Parts No.
	VR431	VR (10k)	ACP1025
	VR432	VR	VRTS6VS153
	VR451	VR (4.7k)	ACP1024
		Other resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		ANTENNA TERMINAL 4-P	AKA1014
		AM RF TUNING BLOCK	AXX1011
	X431	CERAMIC FILTER (450kHz)	ATF-125
	X471	CRYSTAL RESONATOR (7.200MHz)	ASS1005

AMP ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC162	PREDRIVER-IC	UPC1270H
	Q101, 102	TRANSISTOR	2SC1845
	Q103, 104	DUAL TRANSISTOR	2SA1240
	Q105, 106	TRANSISTOR	2SA970
	Q107, 108	TRANSISTOR	2SA1145
	Q109, 110	TRANSISTOR	2SC2705
	Q111, 112	TRANSISTOR	2SC2603
	Q113, 114	TRANSISTOR	2SC3298
	Q115, 116	TRANSISTOR	2SA1306
	Q117, 118	TRANSISTOR	2SC2240
	Q162, 164	TRANSISTOR	2SC2458
	Q201	DUAL TRANSISTOR	2SA1240
	Q202	TRANSISTOR	2SC2705
	Q203	TRANSISTOR	2SC2603
	Q204	TRANSISTOR	2SA1306
	Q205	TRANSISTOR	2SC3298
	Q206	TRANSISTOR	2SC2240
	D101-108	DIODE	HSS104-02
	D109, 110	ZENER DIODE	RD10ESB
	D111-114	DIODE	HSS104-02
	D115, 116	ZENER DIODE	RD10ESB
	D117-122	DIODE	HSS104-02
	D162, 164	DIODE	HSS104-02
	D166	DIODE	HSS104-02
	D197, 198	DIODE	D5SB20F
	D199, 200	DIODE	HSS104-02
	D201	ZENER DIODE	RD10ESB
	D202, 203	ZENER DIODE	RD4.3ESB
	D204-206	DIODE	HSS104-02

RELAIES

Mark	No.	Description	Parts No.
	RY198	RELAY	ASR1035
	RY199	RELAY	ASR-112

COILS

Mark	No.	Description	Parts No.
	L102-104	COIL	ATH1004

CAPACITORS

Mark	No.	Description	Parts No.
	C101, 102	ELECT. CAPACITOR	CEAS4R7M50
	C103, 104	CERAMIC CAPACITOR	CKCYB122K50
	C105-108	CERAMIC CAPACITOR	CCCSL101J50
	C109, 110	CERAMIC CAPACITOR	CCCSL220K500
	C111, 112	ELECT. CAPACITOR	CEAS470M16
	C113, 114	CERAMIC CAPACITOR	CCCSL050C500
	C115, 116	CERAMIC CAPACITOR	CKCYB102K50
	C117-120	CERAMIC CAPACITOR	CCCSL151K500
	C121, 122	AUDIO FILM CAPACITOR	CFTXA473J50
	C123, 124	ELECT. CAPACITOR	CEANP010M100
	C125, 126	CERAMIC CAPACITOR	CKCYB222K50
	C162	ELECT. CAPACITOR	CEHAQ2R2M50

Mark	No.	Description	Parts No.
	C166	CERAMIC CAPACITOR	CKCYB222K50
	C168	ELECT. CAPACITOR	CEHAQ101M10
	C170	CERAMIC CAPACITOR	CCCSL680J50
	C172	CERAMIC CAPACITOR	CKCYX333M25
	C174	ELECT. CAPACITOR	CEAS100M100
	C176	ELECT. CAPACITOR	CEANP2R2M50
	C198, 199	ELECT. CAPACITOR (8200/71V)	ACH1204
	C200	CKA (0.01/AC250V)	ACG1005
	C201	ELECT. CAPACITOR	CEAS2R2M50
	C202	CERAMIC CAPACITOR	CKCYB222K50
	C203	ELECT. CAPACITOR	CEAS2R2M50
	C204, 205	CERAMIC CAPACITOR	CCCSL470J50
	C206	CERAMIC CAPACITOR	CKCYB102K50
	C207	CERAMIC CAPACITOR	CCCSL560K500
	C208	ELECT. CAPACITOR	CEAS470M16
	C209	ELECT. CAPACITOR	CEAS470M25
	C210	AUDIO FILM CAPACITOR	CFTXA473J50
	C211	ELECT. CAPACITOR	CEANP2R2M50
	C212	CERAMIC CAPACITOR	CCCSL101K500
	C213	CERAMIC CAPACITOR	CKCYB102K50
	C222	CERAMIC CAPACITOR	CCCSL101K500

RESISTORS

Mark	No.	Description	Parts No.
	R111−114	FUSLIBLE RESISTOR	RFA1/4PS391J
	R115, 116	CARBON FILM RESISTER	RD1/4PM152J
	R117, 118	CARBON FILM RESISTOR	RD1/4PM473J
	R121, 122	CARBON FILM RESISTOR	RD1/4PMF680J
	R127, 128	FUSLIBLE RESISTOR	RFA1/4PS470J
	R129−136	CARBON FILM RESISTOR	RD1/4PMF101J
	R137, 138	FUSLIBLE RESISTOR	RFA1/4PS4R7J
	R139−142	CARBON FILM RESISTOR	RD1/4PMF4R7J
	R143, 144	FUSLIBLE RESISTOR	RFA1/4PS4R7J
	R145, 146	RESISTOR (0.33, 5W)	ACN1087
	R147, 148	CARBON FILM RESISTOR	RD1/4PMF100J
	R151, 152	METAL OXIDE RESISTOR	RS1LMF100J
	R153−156	CARBON FILM RESISTOR	RD1/4PMF222J
	R178	RESISTOR (0.22, 2W)	ACN−131
	R180, 182	CARBON FILM RESISTOR	RD1/4PMF222J
	R197	METAL OXIDE RESISTOR	RS2LMF103J
	R198, 199	METAL OXIDE RESISTOR	RS1PMF681J
	R207	CARBON FILM RESISTOR	RD1/4PM431J
	R208	CARBON FILM RESISTOR	RD1/4PM123J
	R210	CARBON FILM RESISTOR	RD1/4PMF470J
	R214−217	CARBON FILM RESISTOR	RD1/4PMF101J
	R218	RESISTOR (0.33, 5W)	ACN1087
	R220	CARBON FILM RESISTOR	RD1/4PMF100J
	R221, 222	CARBON FILM RESISTOR	RD1/4PMF222J
	R225	CARBON FILM RESISTOR	RD1/4PMF100J
	R228	FUSLIBLE RESISTOR	RFA1/4PS4R7J
	R230−232	FUSLIBLE RESISTOR	RFA1/4PS4R7J
	R233, 234	CARBON FILM RESISTOR	RD1/4PMF4R7J
		Other resistors	RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN29	CONNECTOR (9P)	KPC9

POWER SUPPLY ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC51	REGULATOR IC	NJM78M56FAS
	Q51, 52	TRANSISTOR	2SC2458
	Q54−57	TRANSISTOR	2SA1048
	Q59	TRANSISTOR	2SA1048
	Q60	TRANSISTOR	2SA1145
	Q61	TRANSISTOR	XDC143ES
	Q62, 63	TRANSISTOR	2SC2458
	Q64	TRANSISTOR	XDC124ES
	Q65	TRANSISTOR	XDC143ES
	Q66	TRANSISTOR	XDC143ES
	Q91	TRANSISTOR	2SC2458
	D51−56	DIODE	HSS104−02
	D58	ZENER DIODE	RD5.1ESB
	D59, 60	DIODE	HSS104−02
	D61	ZENER DIODE	HZS6A1L
	D62	ZENER DIODE	RD6.2ESB
	D63−66	DIODE	S5566
	D67	ZENER DIODE	RD8.2ESB
	D68	DIODE	HSS104−02
	D69−72	DIODE	S5566
	D73	DIODE	D3SBA20 (A)
	D91	DIODE	HSS104−02

RELAY

Mark	No.	Description	Parts No.
	RY51	RELAY	ASR1027

TRANSFORMER

Mark	No.	Description	Parts No.
	T51	POWER TRANSFORMER	ATT1015

CAPACITORS

Mark	No.	Description	Parts No.
	C59	ELECT. CAPACITOR	CEAS221M16
	C60	CERAMIC CAPACITOR	CKCYB103K50
	C61	ELECT. CAPACITOR	CEAS100M50
	C62	ELECT. CAPACITOR	CEAS221M16
	C63	ELECT. CAPACITOR	CEAS470M16
	C64	CERAMIC CAPACITOR	CKCYB103K50
	C65	ELECT. CAPACITOR	CEAS102M25
	C66	ELECT. CAPACITOR	CEAS102M35
	C67	ELECT. CAPACITOR	CEAS222M35
	C68, 69	ELECT. CAPACITOR (4700/35V)	ACH1021
	C70	CERAMIC CAPACITOR	CKCYB103K50
	C71	CKA (0.01/AC250V)	ACG1005
⚠	C72, 73	CKA (0.01/AC400V)	ACG1002
	C74	ELECT. CAPACITOR	CEAS470M10
	C75	ELECT. CAPACITOR	CEAS101M35

RESISTORS

Mark	No.	Description	Parts No.
	R200	CARBON FILM RESISTOR	RD1/2PM432J
	R55	METAL OXIDE RESISTOR	RS2LMFR22J
	R56, 57	METAL OXIDE RESISTOR	RS1LMFR22J
	R66	CARBON FILM RESISTOR	RD1/2PM132J
	R75	CARBON FILM RESISTOR	RD1/4PMF101J
	R79	CARBON FILM RESISTOR	RD1/4PM332J
	R80	CARBON FILM RESISTOR	RD1/4PMF4R7J
	R81	CARBON FILM RESISTOR	RD1/4PMFL470J
⚠	R82	RESISTOR (2.2M, 1/2W)	ACN-208
		Other resistors	RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
⚠		AC OUTLET (3P)	AKP1053
	CN17	CONNECTOR (15P)	KPE15
		JACK (2P)	AKN1006
		JACK (1P)	AKN1020

REAR SP CENTER SP ASSEMBLY

SEMICONDUCTOR

Mark	No.	Description	Parts No.
	Q251	TRANSISTOR	XDC143ES
	D251	DIODE	HSS104-02

RELAY

Mark	No.	Description	Parts No.
	RY251	RELAY	ASR1035

COIL

Mark	No.	Description	Parts No.
	L251	COIL	ATH1004

CAPACITORS

Mark	No.	Description	Parts No.
	C253	AUDIO FILM CAPACITOR	CFTXA473J50

RESISTORS

Mark	No.	Description	Parts No.
	R255	CARBON FILM RESISTOR	RD1/4PMF100J
	R257	CARBON FILM RESISTOR	RD1/4PMF100J
	R260	METAL OXIDE RESISTOR	RS1LMF681J

OTHERS

Mark	No.	Description	Parts No.
	CN	SPEAKER TERMINAL 2-P	AKE1032
	CN25	CONNECTOR (4P)	KPE4
		SPEAKER TERMINAL 4-P	AKE-109

FRONT SP ASSEMBLY

OTHERS

Mark	No.	Description	Parts No.
		SPEAKER TERMINAL 8-P	AKE-111

SP SW ASSEMBLY

SWITCH

Mark	No.	Description	Parts No.
	S251	PUSH SWITCH	SUJ6LYXS

RESISTORS

Mark	No.	Description	Parts No.
	R252, 253	METAL OXIDE RESISTOR	RS2LMF331J

OTHERS

Mark	No.	Description	Parts No.
		JACK (HEADPHONE)	AKN1002
	CN20	JUMPER CONNECTOR	KPC6

TRANS TERMINAL ASSEMBLY

TRANS TERMINAL assembly has no service parts.

AUDIO FUNCTION ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC801	OP-AMP-IC	M5220P
	IC802	E-SW IC	TC9164N
	IC803	OP-AMP IC	NJM4558DXP

CAPACITORS

Mark	No.	Description	Parts No.
	C801, 802	ELECT. CAPACITOR	CEAS100M50
	C805, 806	CHIP CERAMIC C.	CCSQCH221J50

Mark	No.	Description	Parts No.
	C807, 808	CHIP CAPACITOR	CCSQSL101J50
	C809, 810	ELECT. CAPACITOR	CEAS470M16
	C811, 812	MYLAR FILM CAPACITOR	CQMA822J50
	C813, 814	MYLAR FILM CAPACITOR	CQMA242J50
	C815, 816	ELECT. CAPACITOR	CEAS2R2M50
	C817, 818	CHIP CAPACITOR	CKSQYF103Z50
	C819, 820	ELECT. CAPACITOR	CEAS101M16
	C841, 842	ELECT. CAPACITOR	CEAS2R2M50
	C843, 844	CHIP CAPACITOR	CKSQYF103Z50
	C845, 846	ELECT. CAPACITOR	CEAS4R7M50
	C847	CHIP CERAMIC C.	CCSQCH471J50

RESISTORS

Mark	No.	Description	Parts No.
		All resistors	RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN11	CONNECTOR (7P)	KPE7
	CN	PIN JACK 4P (TAPE1, 2)	AKB1181
	CN	PIN JACK 4P (PHONO/CD)	AKB1201

A/V FUNCTION ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC851	E-SW IC	TC9163N
	IC881	VIDEO SWITCH	LA7951
	Q881, 882	TRANSISTOR	2SC2458

CAPACITORS

Mark	No.	Description	Parts No.
	C871, 872	CERAMIC CAPACITOR	CKSQYB103K50
	C873	CHIP CERAMIC C.	CCSQCH471J50
	C881−885	ELECT. CAPACITOR	CEAS470M16
	C886	ELECT. CAPACITOR	CEAS101M16
	C887	CERAMIC CAPACITOR	CKSQYB103K50
	C888−890	ELECT. CAPACITOR	CEAS471M6
	C896, 897	ELECT. CAPACITOR	CEAS101M16
	C898, 899	CERAMIC CAPACITOR	CKSQYB103K50

RESISTORS

Mark	No.	Description	Parts No.
	R890, 894	CARBON FILM RESISTOR	RD1/2PM151J
		Other resistors	RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK (3P)	AKB1102
		PIN JACK (1P)	AKB1145

CONNECTION ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC301, 302	OP-AMP IC	NJM4558DXP
	IC303	E-SW IC	TC9162N
	Q301	TRANSISTOR	2SC2458
	Q302	TRANSISTOR	XDA124ES
	Q303	TRANSISTOR	XDC124ES
	Q304	N-FET	2SK246

CAPACITORS

Mark	No.	Description	Parts No.
	C301−304	ELECT. CAPACITOR	CEAS4R7M50
	C305, 306	CHIP CAPACITOR	CCSQCH680J50
	C307−309	ELECT. CAPACITOR	CEAS4R7M50
	C310	CERAMIC CAPACITOR	CKSQYB103K50
	C311, 312	ELECT. CAPACITOR	CEAS470M16
	C313	CERAMIC CAPACITOR	CKSQYB103K50
	C314	CHIP CERAMIC C.	CCSQCH471J50
	C315	ELECT. CAPACITOR	CEAS470M16
	C316	ELECT. CAPACITOR	CEAS470M10
	C317	CHIP CAPACITOR	CKSQYF103Z50
	C319	ELECT. CAPACITOR	CEAS101M16
	C320	AUDIO FILM CAPACITOR	CFTXA473J50

RESISTORS

Mark	No.	Description	Parts No.
	R327, 328	CARBON FILM RESISTOR	RD1/8PM102J
	R340, 341	CARBON FILM RESISTOR	RD1/8PM100J
	R342	CARBON FILM RESISTER	RD1/8PM4R7J
	R355−357	CARBON FILM RESISTER	RD1/8PM103J
	R358	CARBON FILM RESISTER	RD1/8PM104J
	R359	CARBON FILM RESISTER	RD1/8PM475J
		Other resistors	RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN14	CONNECTOR (6P)	KPE6
	CN15	CONNECTOR (15P)	KPE15

REG (12V) ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC54	REGULATOR IC	NJM78M12FAS
	IC55	REGULATOR IC	NJM79M12FA

CAPACITORS

Mark	No.	Description	Parts No.
	C52, 53	ELECT. CAPACITOR	CEAS101M35
	C56, 57	CERAMIC CAPACITOR	CKCYF103Z50

REG (5.6V) ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC52	REGULATOR IC	M5237L
	IC53	REGULATOR IC	NJM78M56FAS
	Q51	TRANSISTOR	2SA1306

Mark	No.	Description	Parts No.
CAPACITORS			
	C51	ELECT. CAPACITOR	CEAS470M16
	C54	CERAMIC CAPACITOR	CKCYF103Z50
	C55	ELECT. CAPACITOR	CEAS101M35
	C58	CERAMIC CAPACITOR	CKCYX104M25
	C76	ELECT. CAPACITOR	CEAS010M50
RESISTORS			
	R51	METAL OXIDE RESISTOR	RS1LMF100J
	R83	CARBON FILM RESISTOR	RD1/4PMF221J
	R84	CARBON FILM RESISTOR	RD1/4PM363J
	R85	CARBON FILM RESISTOR	RD1/8PM432J

VOLUME ASSEMBLY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC501, 502	OP-AMP IC	NJM4558DXP
	IC503	MECHANISM DRIVER IC	TA8409S
	IC521	OP-AMP IC	NJM4558DXP
	IC522	E-VR IC	TC9154AP
	IC523	OP-AMP IC	NJM4558DXP
	IC561	OP-AMP IC	M5220L
	IC562	E-VR IC	TC9154AP
	IC563	E-TONE CONTROL IC	TC9184P
	IC564	OP-AMP IC	M5220L
	Q501	TRANSISTOR	XDC124ES
	D501, 502	ZENER DIODE	RD5.1ESB2
	D503, 504	DIODE	HSS104-02
	D505	ZENER DIODE	RD5.1ESB2
	D506	ZENER DIODE	RD3.3ESB2
	D521-524	DIODE	HSS104-02
	D561-566	DIODE	HSS104-02
CAPACITORS			
	C501, 502	ELECT. CAPACITOR	CEAS470M10
	C503, 504	ELECT. CAPACITOR	CEAS4R7M50
	C505, 506	CERAMIC CAPACITOR	CKSQYB103K50
	C507, 508	CHIP CAPACITOR	CCSQCH331J50
	C509, 510	ELECT. CAPACITOR	CEAS4R7M50
	C511	ELECT. CAPACITOR	CEANP101M10
	C512	ELECT. CAPACITOR	CEAS101M16
	C513	ELECT. CAPACITOR	CEAS6R8M50
	C514	CHIP CAPACITOR	CCSQCH101J50
	C515	ELECT. CAPACITOR	CEASR47M50
	C516	ELECT. CAPACITOR	CEAS4R7M50
	C521, 522	ELECT. CAPACITOR	CEAS4R7M50
	C523, 524	CERAMIC CAPACITOR	CKSQYB103K50
	C525, 526	CHIP CAPACITOR	CCSQCH470J50
	C527, 528	ELECT. CAPACITOR	CEAS4R7M50
	C531, 532	ELECT. CAPACITOR	CEAS4R7M50
	C533, 534	CERAMIC CAPACITOR	CKSQYB103K50
	C535, 536	CHIP CAPACITOR	CCSQCH470J50
	C539	CERAMIC CAPACITOR	CKSQYB471K50
	C550, 551	ELECT. CAPACITOR	CEAS4R7M50
	C553	ELECT. CAPACITOR	CEAS4R7M50
	C559, 560	CHIP CAPACITOR	CCSQCH331J50
	C561, 562	ELECT. CAPACITOR	CEAS2R2M50
	C563, 564	CHIP CAPACITOR	CKSQYF103Z50
	C565, 566	ELECT. CAPACITOR	CEAS010M50
	C567, 568	CHIP CAPACITOR	CCSQCH121J50
	C569, 570	ELECT. CAPACITOR	CEAS100M50
	C571, 572	MYLAR FILM CAPACITOR	CQMA153J50
	C573, 574	MYLAR FILM CAPACITOR	CQMA823J50
	C575, 576	MYLAR FILM CAPACITOR	CQMA272J50
	C577, 578	MYLAR FILM CAPACITOR	CQMA153J50
	C579, 580	ELECT. CAPACITOR	CEAS4R7M50
	C581, 582	CHIP CAPACITOR	CKSQYF103Z50
	C585	CHIP CAPACITOR	CKSQYB102K50
	C586, 587	CHIP CAPACITOR	CKSQYF103Z50
RESISTORS			
	VR501	VARIABLE RESISTOR	ACX1074
	R501, 502	CARBON FILM RESISTOR	RD1/4PM681J
	R507	CARBON FILM RESISTOR	RD1/8PM821J
	R517	CARBON FILM RESISTOR	RD1/2PM470J
		Other resistors	RS1/10S□□□J
OTHERS			
	CN16	CONNECTOR (11P)	KPE11
	CN18	CONNECTOR (9P)	KPE9

FL. U-COM ASSEMBLY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC601	CONTROL MCU	PDG083A
	Q601-604	TRANSISTOR	2SC2458
	Q606	TRANSISTOR	XDC124ES
	D601-603	DIODE	HSS104-02
	D604	LED (RED)	AEL1108
	D607-625	DIODE	HSS104-02
	D628-631	DIODE	HSS104-02
	D633	DIODE	HSS104-02
SWITCHES			
	S601	SWITCH	ASG1034
	S603-609	SWITCH	ASG1034

Mark	No.	Description	Parts No.
	S611–629	SWITCH	ASG1034
	S631–643	SWITCH	ASG1034
	S645–647	SWITCH	ASG1034
	S649–651	SWITCH	ASG1034
	S653–655	SWITCH	ASG1034
	S657–659	SWITCH	ASG1034

COIL

	L601	AXIAL INDUCTOR	LAU220K

CAPACITORS

	C601	CAPACITOR (47/5.5V)	ACH1135
	C602	ELECT. CAPACITOR	CEAS100M50
	C603	CERAMIC CAPACITOR	CKCYX473M25
	C604	AXIAL CERAMIC C.	CKPUYF473Z16
	C605	ELECT. CAPACITOR	CEAS101M10
	C606	ELECT. CAPACITOR	CEAS010M50
	C607	AXIAL CERAMIC C.	CKPUYF223Z25
	C608	ELECT. CAPACITOR	CEAS470M50

RESISTORS

		All resistors	RD1/8PM☐☐☐J

OTHERS

		FL SPACER	AEB1120
		REMOTE RECEIVER UNIT	AXX1023
	V601	FL TUBE	AAV1145
	X602	CRYSTAL RESONATOR (8.00MHz)	ASS1015

DOL. PRO. MOD. ASSEMBLY

SEMICONDUCTORS

	IC1901	DOLBY PROLOGIC IC	LA2780
	IC1902	DOLBY SURRUND IC	LV1001M-A
	IC1903	DRAM IC	LM3364K-15
	IC1904, 1905	OP-AMP IC	NJM4558M-D
	IC1906	PORT-EXPANDER IC	M66320FP
	Q1901	TRANSISTOR	DTA143EK
	Q1902	DIGITAL TRANSISTOR	DTC143EK
	Q1903	TRANSISTOR	2SD438
	D1901–1905	DIODE	1SS226

CAPACITORS

Mark	No.	Description	Parts No.
	C1901	ELECT. CAPACITOR	CEAS470M25
	C1902	ELECT. CAPACITOR	CEAS101M10
	C1903, 1904	ELECT. CAPACITOR	CEAS100M50
	C1905	ELECT. CAPACITOR	CEYAR33M50
	C1906	CHIP CAPACITOR	CCSQCH681J50
	C1907, 1908	AUDIO FILM CAPACITOR	CFTXA104J50
	C1909, 1910	ELECT. CAPACITOR	CEYA2R2M50
	C1911	ELECT. CAPACITOR	CEASR15M50
	C1912	ELECT. CAPACITOR	CEYA3R3M50
	C1913, 1914	AUDIO FILM CAPACITOR	CFTXA154J50
	C1915	ELECT. CAPACITOR	CEYA3R3M50
	C1916	ELECT. CAPACITOR	CEASR15M50
	C1917, 1918	ELECT. CAPACITOR	CEYA2R2M50
	C1919	AUDIO FILM CAPACITOR	CFTXA473J50
	C1920	AUDIO FILM CAPACITOR	CFTXA104J50
	C1921	AUDIO FILM CAPADITOR	CFTXA334J50
	C1922	CHIP CAPACITOR	CCSQCH681J50
	C1923, 1924	AUDIO FILM CAPACITOR	CFTXA104J50
	C1925	ELECT. CAPACITOR	CEYAR33M50
	C1926, 1927	ELECT. CAPACITOR	CEAS100M50
	C1928, 1929	ELECT. CAPACITOR	CEAS220M16
	C1930, 1931	ELECT. CAPACITOR	CEAS2R2M50
	C1932	AUDIO FILM CAPACITOR	CFTXA153J50
	C1933	AUDIO FILM CAPACITOR	CFTXA103J50
	C1934	CHIP CAPACITOR	CCSQCH681J50
	C1935	AUDIO FILM CAPACITOR	CFTXA104J50
	C1936	ELECT. CAPACITOR	CEAS471M16
	C1937	ELECT. CAPACITOR	CEAS4R7M50
	C1938	CHIP CAPACITOR	CCSCH102J50
	C1939	AUDIO FILM CAPACITOR	CFTXA223J50
	C1940	CHIP CAPACITOR	CCSQCH151J50
	C1941–1943	ELECT. CAPACITOR	CEAS221M16
	C1944	CERAMIC CAPACITOR	CKSQYF104Z50
	C1945	ELECT. CAPACITOR	CEASR22M50
	C1946	AUDIO FILM CAPACITOR	CFTXA683J50
	C1947	MYLAR FILM CAPACITOR	CQMA392J50
	C1948	MYLAR FILM CAPACITOR	CQMA472J50
	C1949	AUDIO FILM CAPACITOR	CFTXA333J50
	C1950	ELECT. CAPACITOR	CEANP100M35
	C1951	ELECT. CAPACITOR	CEAS010M50
	C1952	ELECT. CAPACITOR	CEAS100M50
	C1953	CHIP CERAMIC C.	CCSQCH471J50
	C1954	MYLAR FILM CAPACITOR	CQMA562J50
	C1955	MYLAR FILM CAPACITOR	CQMA682J50
	C1956	ELECT. CAPACITOR	CEANPR33M50
	C1957, 1958	ELECT. CAPACITOR	CEAS100M50
	C1959	CHIP CAPACITOR	CCSQCH681J50
	C1960	ELECT. CAPACITOR	CEAS100M50

Mark	No.	Description	Parts No.
	C1961	AUDIO FILM CAPACITOR	CFTXA154J50
	C1962	CHIP CAPACITOR	CCSQCH151J50
	C1963	AUDIO FILM CAPACITOR	CFTXA223J50
	C1964	CHIP CAPACITOR	CCSCH102J50
	C1965	ELECT. CAPACITOR	CEAS4R7M50
	C1966	CERAMIC CAPACITOR	CKSQYF104Z50
	C1967	CERAMIC CAPACITOR	CKSQYB103K50
	C1968	ELECT. CAPACITOR	CEAS221M10
	C1970	CERAMIC CAPACITOR	CKSQYB562K50
	C1971−1973	CHIP CAPACITOR	CCSQCH101J50

RESISTORS

Mark	No.	Description	Parts No.
	VR1901	VR (47k)	ACP1045
		Other resistors	RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
	X1901	CRYSTAL RESONATOR (8.00MHz)	ASS1015

7. ADJUSTMENTS

7.1 TUNER SECTION

1. Wiring …… Connect the wires as shown in Fig. 7−1 (FM ANT. terminal : 75Ω).
2. Preset …… Set the VR451 to center position.
3. When the SD model is used, set the band select switch to AM : 10kHz/FM : 100kHz.

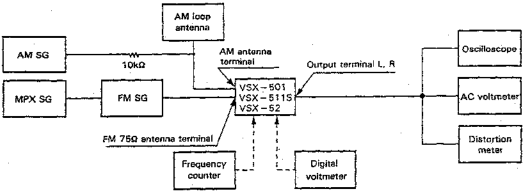

AM loop antenna
AM SG
10kΩ
AM antenna terminal
Output terminal L, R
Oscilloscope
MPX SG
FM SG
VSX−501
VSX−511S
VSX−52
AC voltmeter
FM 75Ω antenna terminal
Distortion meter
Frequency counter
Digital voltmeter

Fig. 7−1 AM and FM adjustment wiring diagram

Note : Stereo modulation Main 1kHz L+R ±68.25kHz
Pilot 19kHz±6.75kHz

FM Section

Order	Item	SSG			Receiving frequency	Adjustment	
		Frequency	Modulation	Level		Adjustment location	Remarks
1	Checking front end VT	No signal			108MHz	—	Check that the voltage between terminal 41 and GND is 8.7±2.0V.
2	Checking front end VT				87.5MHz	—	Check that the voltage between terminal 41 and GND is 3.4±1.5V.
3	Increasing front end sensitivity	98MHz		Weak input	98MHz	L402, L404, T402	Set the the voltage between terminal 43 and GND to maximum, and check that the practical sensitivity is as specified. (8dBμV/75Ω or less)
4	Center adjustment	98MHz		60dBμV	98MHz	L431	Adjust the voltage between terminals 45 and 46 to 0±50mV.
5	Checking monophonic distortion	98MHz	1kHz ±75kHz dev.	60dBμV	98MHz	—	Check that the monophonic distortion is as specified. (0.8% or less)
6	Adjusting VCO		OFF	60dBμV		VR451	Adjust the output of terminal 44 to 76.0kHz±1.0kHz.
7	Adjusting stereo distortion	98MHz	L-ONLY R-ONLY	60dBμV	98MHz	T402	Minimize the distortion within 1/4 rotation of the core, and check conformity to the specification. (1%)
8	Checking separation	98MHz	L-ONLY R-ONLY	60dBμV	98MHz	—	Check that the seperation of L → R and R → L is as specified. ∗1
9	Checking lighting levels of TUNED and STEREO IND.	98MHz	STEREO	10dBμV ($^{+6dB}_{-4dB}$)	98MHz	VR432	Adjust TUNED and STEREO IND. to start lighting.

∗1 : More than 30dB.

AM Section

Order	Item	SSG			Receiving frequency	Adjustment	
		Frequency	Modulation	Level		Adjustment location	Remarks
1	Checking front end VT	No signal			1700kHz	—	Check that the voltage between terminal 41 and GND is 7.5±1.0V.
2	Checking front end VT				530kHz	—	Check that the voltage between terminal 41 and GND is 1.5±0.5V.
3	Checking front end sensitivity	1000kHz	400kHz 30% MOD.	Practical sensitivity level	1000kHz	—	Check that the practical sensitivity (maximum sensitivity) is as specified. *2
4	Adjusting lighting level of TUNED IND.	1000kHz			1000kHz	VR431	Adjust the lighting level of TUNED IND. to 55dBμV/m±3dB.

*2 : 60dBμV/m or less.

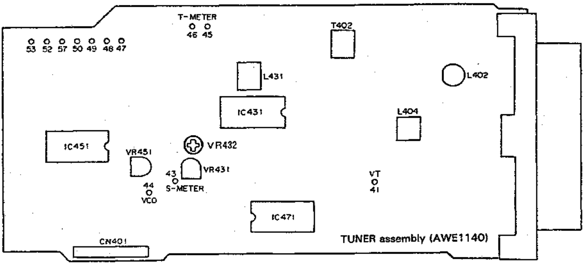

T-METER
46
45
T402
53
52
57
50
49
48
47
L431
L402
IC431
L404
IC451
VR451
VR432
43
VR431
44
VCO
S-METER
VT
41
IC471
CN401
TUNER assembly (AWE1140)

Fig. 7-2 Adjustment points

7.2 SURROUND SECTION

Dolby Level Adjustment

Set the switches as follows :

- SURROUND MODE : STUDIO
- DELAY TIME : 20m Sec.
- INPUT SELECTOR : CD

1. Input a signal of 1kHz at 300mV to the Lch side of the CD terminal.
2. Adjust the input level so that Pin ⑮ of the CN1901 connector becomes 300mVrms (=0dB).
3. Adjust VR1901 so that the output level of Pin ① (DELAY OUT) of the CN1901 connector becomes −0.5dB±1dB.

7.3 OSD ASSEMBLY SECTION (VSX−52 ONLY)

7.3.1 Adjusting H. SYNC and V. SYNC for Superimposed Display.

1. Adjust the VR1102 so that the application of power without any signal causes the OSD assembly's JP (H) to show a frequency of 15.75kHz±50Hz.
2. Adjust the VR1101 so that the application of power without any signal causes the OSD assembly's JP (V) to show a frequency of 53Hz±1Hz.

7.3.2 Adjusting the Superimposed Display in the Center

- Connect the VIDEO OUT (TO MONITOR TV) terminal to a monitor TV.

1. Turn the SIMULATED STEREO switch ON.
2. Then, turn the SIMULATED STEREO switch OFF.
3. Then adjust the TC1101 to center the superimposed display " SIMULATED STEREO OFF ", leaving equal margin on both right and left of the TV screen.

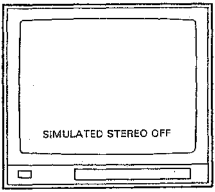
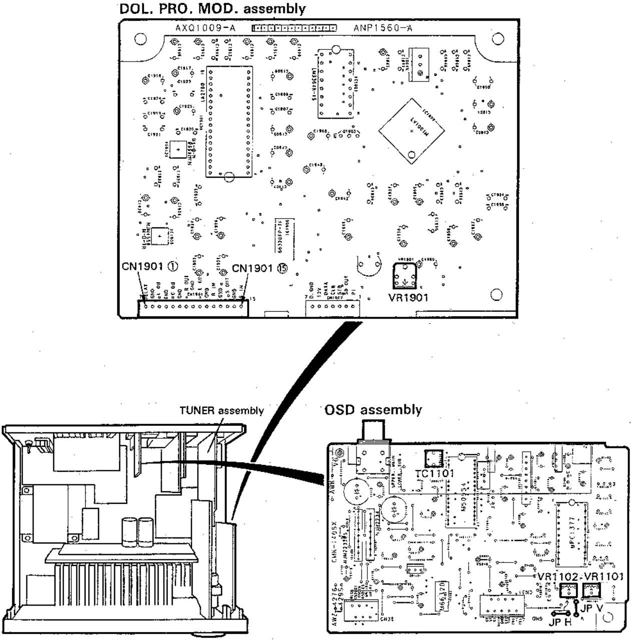


Fig. 7−3



DOL. PRO. MOD. assembly

TUNER assembly

OSD assembly

AXQ1009-A
ANP1560-A
CN1901 ①
CN1901 ⑮
VR1901
TC1101
VR1102
VR1101
JP V
JP H

Fig. 7-4 Adjustment points

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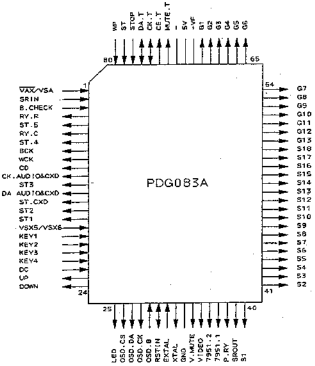
8. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

■ PDG083A (IC601)

- **System Control Micro-computer**
- Pin Assignment (Top View)


WP
ST
STOP
DA.T
CK.T
CE.T
MUTE.T
-
5V
+VF
G1
G2
G3
G4
G5
G6
80
65
VAX/VSA
SRIN
B.CHECK
RY.R
ST.5
RY.C
ST.4
BCK
WCK
CD
CK.AUDIO&CXD
ST3
DA AUDIO&CXD
ST.CXD
ST2
ST1
VSX5/VSX6
KEY1
KEY2
KEY3
KEY4
DC
UP
DOWN
1
24
PDG083A
64
G7
G8
G9
G10
G11
G12
G13
S18
S17
S16
S15
S14
S13
S12
S11
S10
S9
S8
S7
S6
S5
S4
S3
S2
41
25
40
LED
OSD.CS
OSD.DA
OSD.CK
OSD.B
RSTIN
EXTAL
XTAL
GND
V.MUTE
VIDEO
7951.2
7951.1
P.RY
SROUT
S1

- Pin Function

No.	Terminal Name	I/O	Description
1	VSX/VSA	I	Port for switching between VSX and VSA.
2	SR IN	I	Remote control signal input from the SR IN terminal or the light receiving unit.
3	B-Check	I	Remote control signal input from the MR IN terminal. The system detects remote control operation SUB ROOM when the signal is input.
4	RY-Rear	O	Rear relay ON/OFF
5	ST. 5	O	Strobe to operate the rear electronic VR.
6	RY-Center	O	Center relay ON/OFF
7	ST. 4	O	Strobe to operate the front balance and tone.
8	BCK	O	DSP IC bit clock
9	WCK	O	DSP IC word clock
10	CD	O	DSP IC data
11	CK. AUDIO & CXD	O	Clock for the audio system and the port expander.
12	ST. 3	O	Strobe to operate the surround and center electronic VRs.
13	DA. AUDIO & CXD	O	Data for the audio system and the port expander.
14	ST. CXD	O	Strobe for the port expander.
15	ST. 2	O	Strobe for subfunction, multiroom VR and analog surround SW.
16	ST. 1	O	Strobe for main function and DSP surround SW.
17	SX5/VSX6	I	Port for switching between VSX-5 (VSX-501, VSX-511S) and VSX-6 (VSX-D601).
18	KEY IN 1	I	KEY MATRIX return input
19	KEY IN 2	I	
20	KEY IN 3	I	
21	KEY IN 4	I	
22	DC	I	Detection of the VR position (VR MAX : 5V, VR MIN : 0V) of AUDIO SOURCE CONTROL and conversion of A/D.
23	UP	O	VR : UP when using remote control.
24	DOWN	O	VR : DOWN when using remote control.
25	LED	O	VR knob LED ON/OFF during remote control operation.
26	OSD. CS	O	CHIP SELECT to OSD IC M50554.
27	OSD. DA	O	Data to OSD IC.
28	OSD. CK	O	Clock to OSD IC.
29	OSD. BLUE	I	When OSD is installed, the system detects input of video signal from the UPC1377 synchronous separation IC and transfers the signal to H/L. Then the system determines whether the signal is BLUE BACK or VIDEO SIGNAL (so-called Reset).

No.	Terminal Name	I/O	Description
30	$\overline{\text{RST}}$ IN	I/O	Reset
31	EXTAL	I	Oscillator IN/OUT
32	XTAL	O	
33	GND	—	GND
34	V. MUTE	O	To the MUTE terminal of LA7951 used for MUTE and FUNCTION of the video signal.
35	VIDEO	O	Switches between VIDEO and TV when front video input is added (NJM2233).
36	LA7951. 2	O	2-bit control terminal of LA7951 (video function).
37	LA7951. 1	O	
38	P. RY	O	Power relay and turning the standby LED to ON/OFF.
39	SR OUT	O	Sends SR signal of multiple devices during AUDIO SOURCE CONTROL.
40	SEG1/KEY1	O	Display segment and KEY MATRIX output.
41	SEG2/KEY2	O	
42	SEG3/KEY3	O	
43	SEG4/KEY4	O	
44	SEG5/KEY5	O	
45	SEG6/KEY6	O	
46	SEG7/KEY7	O	
47	SEG8/KEY8	O	
48	SEG9/KEY9	O	
49	SEG10/KEY10	O	
50	SEG11/KEY11	O	
51	SEG12/KEY12	O	
52	SEG13/KEY13	O	
53	SEG14/KEY14	O	
54	SEG15/KEY15	O	
55	SEG 16	O	Display segment
56	SEG 17	O	
57	SEG 18	O	

No.	Terminal Name	I/O	Description
58	GRID 13	O	Display grid
59	GRID 12	O	
60	GRID 11	O	
61	GRID 10	O	
62	GRID 9	O	
63	GRID 8	O	
64	GRID 7	O	
65	GRID 6	O	
66	GRID 5	O	
67	GRID 4	O	
68	GRID 3	O	
69	GRID 2	O	
70	GRID 1	O	
71	−VF	—	FL negative voltage −VFDP
72	+5V(VDD)	—	Positive power supply
73	—	—	NC
74	MUTE. T	O	TUNER output mute
75	CE. T	O	TUNER chip enable
76	CK. T	I/O	TUNER clock
77	DA. T	I/O	TUNER data
78	STOP (TUNED)	I	Control signal sent from IC when performing tuning. The $\boxed{\text{TUNED}}$ FL indicator lights up when the system detects the signal.
79	STEREO	I	Signal sent from IC when the system is in the STEREO mode. The $\boxed{\text{STEREO}}$ indicator lights up when the system detects the signal.
80	AC Wake Up	I	AC short break detection report

9. REMOTE CONTROL UNIT [CU－VSX045 (AXD1270)]

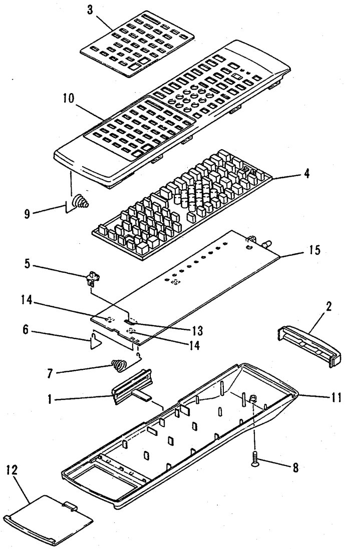
9.1 EXPLODED VIEW AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior

Mark	No.	Description	Parts No.
	1	MODE CHECK KEY	AZA1335
	2	FILTER	AZA1336
	3	PLATE	AZA1369
	4	RUBBER SHEET	AZA1364
	5	KNOB	AZA1349
	6	TERMINAL (+)	AZB1327
	7	TERMINAL (−)	AZB1328
	8	SCREW	AZB1329
	9	TERMINAL (C)	AZB1330
	10	CASE (A)	AZN2089
	11	CASE (B)	AZN2090
	12	BATTERY COVER	AZN2091
	13	SLIDE SW	AZS1117
	14	TACT SW	AZS1118
NSP	15	P. C. BOARD	AZW1130



9.2 ELECTRICAL PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560Ω → 56×10^1 → 561 .... RD1/8PM$\boxed{5}\boxed{6}\boxed{1}$J
47kΩ → 47×10^3 → 473 .... RD1/4PS$\boxed{4}\boxed{7}\boxed{3}$J
0.5Ω → 0R5 .... RN2H$\boxed{0}\boxed{R}\boxed{5}$K
1Ω → 010 .... RS1P$\boxed{0}\boxed{1}\boxed{0}$K

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ → 562×10^1 → 5621 .... RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

Parts list of AXD1270

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1	μ−COM	ACM001−029
	IC2	IC	AZC1564
	IC3	LOGIC IC	MC74HC138F
	Q1, 2	CHIP TRANSISTOR	2SC3052E
	Q3, 4	TRANSISTOR	2SD1622
	D1	DIODE	DWA010−TE
	D10−17	LED	AZC1573
	D2−6	DIODE	DWA010−TE
	D7	LED	SLR−938C
	D8	DIODE	SPS−503C−3
	D9	LED	AZC1573
CAPACITORS			
	C1, 2	CERAMIC CAPACITOR	CCDSL330J50
	C3	CERAMIC CAPACITOR	CCDSL221J50
	C4	CERAMIC CAPACITOR	CKDYX104M25
	C5	ELECT. CAPACITOR	CEAS470M10
	C6	CERAMIC CAPACITOR	CKDYB103K50
	C7	ELECT. CAPACITOR	CEAS221M10
	C8	ELECT. CAPACITOR	CEAS4R7M50
RESISTORS			
	R7, 8	CARBON FILM RESISTOR	RD1/4PMFL1R5J
		Other resistors	RD1/8PM□□□J
OTHERS			
	X1	RESONATOR	AZC1570

9.3 SCHEMATIC DIAGRAM

NOTE)

JP2 : The terminal for switching Fc (carrier frequency of the fixed code). This terminal is set at OPEN (Fc = 40kHz) when delivered. If a product of another manufacturer accidentally receives the PIONEER code, short the terminal so that Fc will be 36.7kHz. (In which case, the learned code and preset code do not change.)

JP3 : This remote control saves the learned data, timing data in ROM and other data (such as code data) in RAM. ROM already contains the timing data for other primary manufacturers. JP3 is a terminal for switching whether or not to use that pre-loaded timing data during learning.

This terminal is set at OPEN when delivered. If "data is learned but the product does not operate," there is the rare possibility that learned timing data is affected by the timing data for another primary manufacturer in ROM, causing the receiving product to be deactivated. In such a case, short JP3 to clear all the learned data and restart data learning, so that the data precision is increased. (In which case, the learned data in RAM is shared as is.)

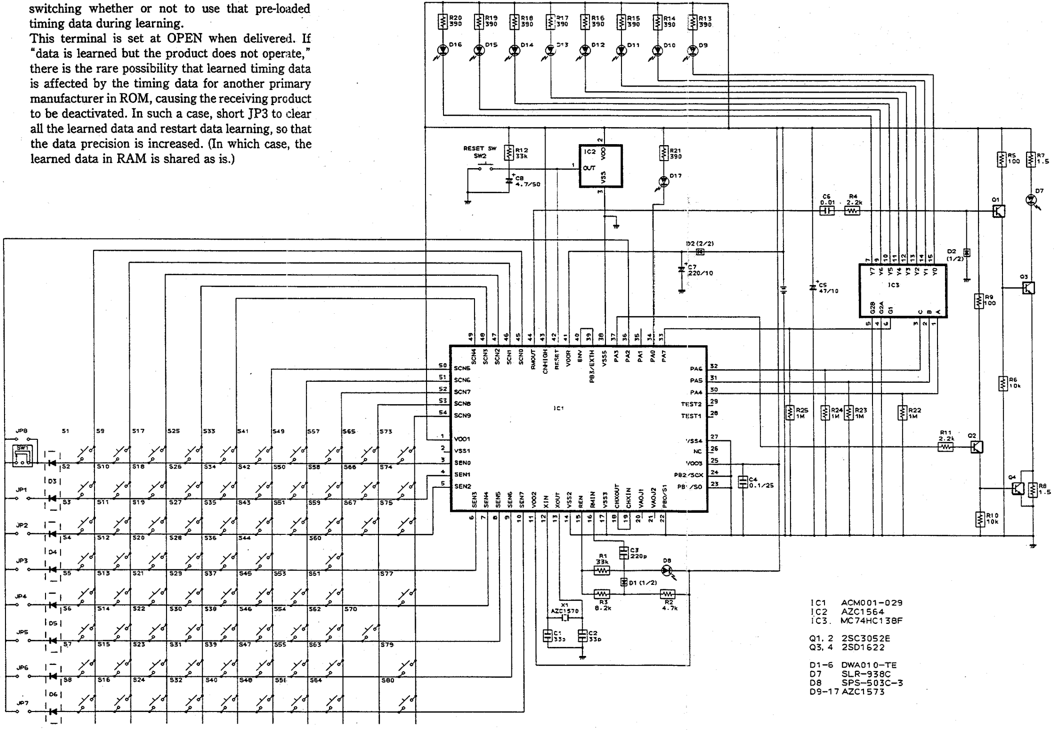
NOTE:

▭ : Indicates a chipresistor.
╪ : Indicates a chipcapacitor.
⊠ : Indicates a chiptransistor.
⊟ : Indicates a chipdiode.

Note: (Type 2)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ : DC voltage (V) at no input signal unless otherwise noted.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ : Adjusting point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

SW1 : CENT. · BAL./REAR·REAR BAL.
SW2 : RESET
S1 : VCR1
S2 : VCR2
S3 : LD
S4 : TV
S5 : CD
S6 : TUNER
S7 : DECK Ⅰ
S8 : DECK Ⅱ
S9 : DAT
S10 : MODE CHECK
S11 : LEARN
S12 : EDIT
S13 : MULTI COMMAND
S14 : M.CLEAR
S15 : POWER
S16 : ⏮
S17 : REC
S18 : ⏭
S19 : ⏪
S20 : ◀ (SEARCH)
S21 : ⏩
S22 : ⏸
S23 : ■
S24 : ▶
S25 : TV/VCR (+10)
S26 : SELECT (DISP)
S27 : TV FUNC (BAND)
S28 : 1
S29 : 2
S30 : 3
S31 : 4
S32 : 5
S33 : 6
S34 : 7
S35 : 8
S36 : 9
S37 : 10/0
S38 : 11/PGM
S39 : 12/CLEAR
S40 : CUSTOM (TV VOL+)
S41 : SCAN (TV VOL−)
S42 : FREQ CH (Λ)
S43 : FREQ CH (V)
S44 : RECEIVER POWER
S45 : AUTO SOURCE CONTROL 1
S46 : AUTO SOURCE CONTROL 2
S47 : SLEEP
S48 : VCR1
S49 : VCR2
S50 : LD
S51 : TV
S53 : TAPE1/DAT
S54 : TAPE2/MONITOR
S55 : CD
S56 : TUNER
S57 : PHONO
S58 : SIMULATED STEREO
S59 : ACOUSTIC
S60 : V.SEL
S61 : DISPLAY
S62 : RETURN
S63 : SURR MODE
S64 : 3CH LOGIC
S65 : CENTER MODE
S66 : TEST TONE
S67 : MUTING
S70 : CENTER +
S73 : REAR L
S74 : REAR R
S75 : DELAY TIME
S77 : CENTER −
S79 : MASTER VOLUME +
S80 : MASTER VOLUME −


R20 390
R19 390
R18 390
R17 390
R16 390
R15 390
R14 390
R13 390
D16
D15
D14
D13
D12
D11
D10
D9
RESET SW
SW2
R12 33k
C8 4.7/50
IC2
OUT
VDD
VSS
R21 390
D17
C6 0.01
R4 2.2k
R5 100
R7 1.5
D7
Q1
D2 (2/2)
C7 220/10
C5 47/10
D2 (1/2)
IC3
Q3
R9 100
IC1
SCN4
SCN3
SCN2
SCN1
SCN0
RMOUT
CNHIGH
RESET
VDDR
ENV
PB3/EXTH
VSS5
PA3
PA2
PA1
PA0
PA7
SCN5
SCN6
SCN7
SCN8
SCN9
VDD1
VSS1
SEN0
SEN1
SEN2
PA6
PA5
PA4
TEST2
TEST1
VSS4
NC
VDD5
PB2/SCK
PB1/SO
SEN3
SEN4
SEN5
SEN6
SEN7
VDD2
XIN
XOUT
VSS2
REN
RMIN
VSS3
CHXOUT
CHXIN
VAOJ1
VAOJ2
PBO/SI
C4 0.1/25
R25 1M
R24 1M
R23 1M
R22 1M
R6 10k
R11 2.2k
Q2
Q4
R8 1.5
R10 10k
R1 33k
C3 220p
D8
D1 (1/2)
R3 8.2k
R2 4.7k
X1 AZC1570
C1 33p
C2 33p
JP8
SW1
JP1
JP2
JP3
JP4
JP5
JP6
JP7
D3
D4
D5
D6
S1
S9
S17
S25
S33
S41
S49
S57
S65
S73
S2
S10
S18
S26
S34
S42
S50
S58
S66
S74
S3
S11
S19
S27
S35
S43
S51
S59
S67
S75
S4
S12
S20
S28
S36
S44
S60
S5
S13
S21
S29
S37
S45
S53
S61
S77
S6
S14
S22
S30
S38
S46
S54
S62
S70
S7
S15
S23
S31
S39
S47
S55
S63
S79
S8
S16
S24
S32
S40
S48
S56
S64
S80

IC1 ACM001-029
IC2 AZC1564
IC3. MC74HC138F

Q1, 2 2SC3052E
Q3, 4 2SD1622

D1−6 DWA010−TE
D7 SLR−938C
D8 SPS−503C−3
D9−17 AZC1573

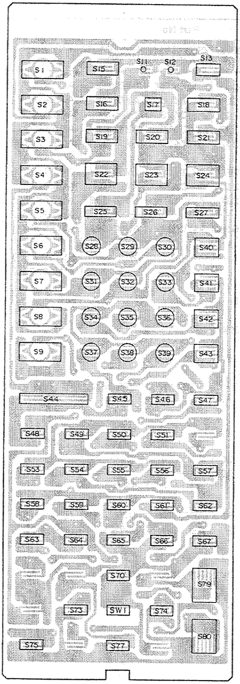
9.4 P. C. BOARD PATTERN

-▭- : Indicates a chip resistor.

╪ : Indicates a chip capacitor.

⊡ : Indicates a chip transistor.

⊠ : Indicates a chip diode.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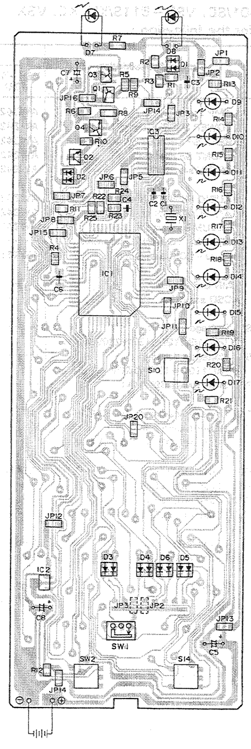
SW1
S74
S80
S75
S77


D7
R7
D8
D1
JP1
R2
JP2
C7
Q3
R5
R3
R1
C3
R13
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JP16
D9
R6
R8
JP14
JP3
R14
Q4
R10
IC3
D10
Q2
R15
D11
D2
JP6
JP5
R16
R24
JP7
R22
C4
C2
C1
D12
R11
R25
R23
X1
R17
JP8
JP15
D13
R4
R18
IC1
D14
C6
JP9
JP10
D15
JP11
R19
D16
R20
S10
D17
R21
JP20
JP12
D3
D4
D6
D5
IC2
JP3
JP2
C8
JP13
SW4
C5
SW2
S14
R12
JP14
⊖
⊕

10. FOR VSX – 501/SD, VSX – 511S/KU, KC AND VSX – 52/KU TYPES

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

10.1 CONTRAST OF MISCELLANEOUS PARTS

VSX – 501/SD, VSX – 511S/KU, KC, VSX – 52/KU and VSX – 501/KU have the same construction except for the following :

Mark	Symbol & Description	Part No.					Remarks
		VSX – 501/ KU	VSX – 501/ SD	VSX – 511S/ KU	VSX – 511S/ KC	VSX – 52/ KU	
◉	AMP assembly	AWZ4254	AWZ4254	AWZ4254	AWZ4254	AWZ4258	
◉	POWER SUPPLY assembly	AWZ4255	AWZ4255	AWZ4255	AWZ4255	AWZ4259	
◉	REAR SP CENTER SP assembly	AWZ4256	AWZ4256	AWZ4256	AWZ4256	AWZ4260	
NSP	FRONT SP assembly	AWZ4257	AWZ4257	AWZ4257	AWZ4257	AWZ4261	
◉	SP SW assembly	AWZ4262	AWZ4262	AWZ4262	AWZ4262	AWZ4289	*1
◉	AUDIO FUNCTION assembly	AWZ4263	AWZ4263	AWZ4263	AWZ4263	AWZ4270	
◉	A/V FUNCTION assembly	AWZ4264	AWZ4264	AWZ4264	AWZ4264	AWZ4271	
◉	VOLUME assembly	AWZ4269	AWZ4269	AWZ4269	AWZ4269	AWZ4273	
NSP	PRE OUT TERMINAL assembly	....	....	....	....	AWZ4272	
◉	FL. U – COM assembly	AWK1556	AWK1556	AWK1556	AWK1556	AWK1544	
◉	MR & S assembly	....	....	....	....	AWZ4275	
◉	OSD assembly	....	....	....	....	AWZ4276	
⚠	S1 Voltage selector (AC110V/120 – 127V/220V/240V)	....	AKX – 507	....	....	....	
⚠	S2 Voltage selector (AC110V – 127V/220V – 240V)	....	AKX1004	....	....	....	
⚠	S3 Slide switch (9k/10k)	....	ASH – 004	....	....	....	
⚠	T1 Power transformer (AC120V)	ATS1424	....	ATS1424	ATS1424	ATS1424	
⚠	T1 Power transformer (AC110V/120 – 127V/220V/240V)	....	ATS1425	....	....	....	
⚠	FU1 Fuse (8A/125V)	AEK1002	....	AEK1002	AEK1002	AEK1002	
⚠	FU1 Fuse (4A/125V)	....	AEK – 125	....	....	....	
⚠	FU2 Fuse (4A/125V)	....	AEK – 125	....	....	....	
⚠	FU7 Fuse (8A/125V)	....	....	....	AEK1002	....	
⚠	AC Power cord	ADG1058	ADG1051	ADG1058	ADG1058	ADG1058	
⚠	Strain relief	AEP – 113	AEC – 882	AEP – 113	AEP – 113	AEP – 113	
	Master VOL assembly	AAB1207	AAB1207	AAB1207	AAB1207	AAB1119	
	Button (Balance, Treble, Bass, Delay time)	AAD2279	AAD2279	AAD2279	AAD2279	AAD2271	
	Kuro button (Dolby mode, Dolby 3CH logic)	AAD2274	AAD2274	AAD2274	AAD2274	....	
	Kin button (Dolby mode, Dolby 3CH logic)	....	....	....	....	AAD2273	
	Lens (For MR & S knob)	....	....	....	....	AAK2144	

**1 : Although AWZ4289 and AWZ4262 are different in part number, they have the same service parts.*

Mark	Symbol & Description	Part No.					Remarks
		VSX-501/ KU	VSX-501/ SD	VSX-511S/ KU	VSX-511S/ KC	VSX-52/ KU	
	Display panel	AAK2324	AAK2324	AAK2324	AAK2324	AAK2295	
	Name plate	AAM1029	AAM1029	AAM1029	AAM1029	AAM1001	
	Front panel	AMB1987	AMB1987	AMB1988	AMB1988	AMB1989	
	Side panel	....	....	....	....	AMR2419	
	Side plate (Rubber)	....	....	....	....	AAP1264	
NSP	Rear panel	ANC1893	ANC1892	ANC1893	ANC1893	ANC1895	
	Screw	....	VMZ26P040FZK	....	....	....	For Slide SW S3
	Screw	....	....	....	....	ABA1148	For Side panel
NSP	Spacer	....	....	....	....	AEC1430	
NSP	PCB holder	ANG-502	ANG-502	ANG-502	ANG-502	....	
	Front rear pad	AHA1503	AHA1503	AHA1503	AHA1503	....	
	Front pad	....	....	....	....	AHA1504	
	Rear pad	....	....	....	....	AHA1505	
	Packing case	AHD2285	AHD2286	AHD2284	AHD2284	AHD2283	
	Operating instructions (English)	ARB1378	ARB1378	ARB1378	ARB1378	ARB1379	
	Operating instructions (Spanish)	....	ARC1362	....	....	....	
	Operating instructions (French)	....	....	....	ARC1363	....	
	Remote control unit (CU-VSX046)	AXD1263	AXD1263	....	....	....	
	Remote control unit (CU-VSX045)	....	....	AXD1270	AXD1270	AXD1270	
	Battery cover	PZN-001	PZN-001	....	....	....	
NSP	Battery (R03, AAA)	AEX-021	AEX-021	....	....	....	
NSP	Battery (LR6, AA)	....	....	AEX1007	AEX1007	AEX1007	

AMP ASSEMBLY

AMP assembly (AWZ4258) and AMP assembly (AWZ4254) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4254	AWZ4258	
	C198 (8200/71V	ACH1204	ACH1224	
	C199 (8200/71V)	ACH1204	ACH1225	

POWER SUPPLY ASSEMBLY

POWER SUPPLY assembly (AWZ4259) and POWER SUPPLY assembly (AWZ4255) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4255	AWZ4259	
	Q58	....	2SA1048	
	Q92	....	2SC2458	
	D57	....	HSS104-02	
	R64, R67	....	RD1/8PM224J	
	R91	....	RD1/8PM562J	
	R92	....	RD1/8PM622J	

REAR SP CENTER SP ASSEMBLY

REAR SP CENTER SP assembly (AWZ4260) and REAR SP CENTER SP assembly (AWZ4256) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4256 •	AWZ4260	
	Q253	....	XDC143ES	
	D253	....	HSS104－02	
	RY253	....	ASR1035	
	R268	....	RD1/8PM333J	
	R269	....	RS1LMF681J	
	R271, R273	....	RD1/8PM222J	
	R272	....	RD1/8PM473J	
	Speaker terminal 4－P	AKE－109	....	
	Speaker terminal 8－P	....	AKE－111	
	Pin jack 3P	....	AKB1120	

VOLUME ASSEMBLY

VOLUME assembly (AWZ4273) and VOLUME assembly (AWZ4269) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4269	AWZ4273	
	IC526	....	XRU4066B	
	Q521	....	XDA124ES	
	Q522, Q523	....	XDC124ES	
	C537, C538	....	CEAS4R7M50	
	R535, R536, R551, R552	....	RS1/10S474J	
	R550, R553	....	RS1/10S103J	

AUDIO FUNCTION ASSEMBLY

AUDIO FUNCTION assembly (AWZ4270) and AUDIO FUNCTION assembly (AWZ4263) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4263	AWZ4270	
	Pin jack 4P (PHONO/ CD)	AKB1201	....	
	Pin jack 2P (CD)	....	AKB1155	
	Pin jack 2P (PHONO)	....	AKB1167	

FL. U-COM ASSEMBLY

FL. U-COM assembly (AWK1544) and FL. U-COM assembly (AWK1556) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWK1556	AWK1544	
	Q605	....	2SC2458	
	D605, D606	....	AEL1113	
	D626, D627	....	HSS104-02	
	S602, S610	....	ASG1034	OSD SELECT, MR & S
	R609	....	RD1/8PM103J	
	R610	....	RD1/4PM750J	

FRONT SP ASSEMBLY

FRONT SP assembly (AWZ4261) and FRONT SP assembly (AWZ4257) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4257	AWZ4261	
	Speaker terminal 8-P	AKE-111	AKE1011	

A/V FUNCTION ASSEMBLY

A/V FUNCTION assembly (AWZ4271) and A/V FUNCTION assembly (AWZ4264) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4264	AWZ4271	
	IC883	....	LA7952	
	L851-L854	....	LAU680K	
	C888	CEAS471M6	....	
	C894	....	CEAS470M16	
	C895	....	CKSQYB103K50	
	C901-C904	....	CEANP470M25	
	R888	RS1/10S103J	....	
	R889	RS1/10S680J	....	
	R899, R900	....	RS1/10S102J	
	R912	....	RD1/8PM100J	
	R913	....	RD1/8PM470J	
	Pin jack 3P (LD)	AKB1102	AKB1137	
	Pin jack 1P (TV MONITOR)	AKB1145	....	

10.2 PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10^1 → 561 .... RD1/8PM 5 6 1 J
47kΩ → 47 × 10^3 → 473 .... RD1/4PS 4 7 3 J
0.5Ω → 0R5 .... RN2H 0 R 5 K
1Ω → 010 .... RS1P 0 1 0 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62kΩ → 562 × 10^1 → 5621 .... RN1/4PC 5 6 2 1 F

PRE OUT TERMINAL ASSEMBLY

RESISTORS

Mark	No.	Description	Parts No.
	R591−594	CARBON FILM RESISTOR	RD1/8PM☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN	PIN JACK 2P	AKB1171

MR & S ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	E−SW IC	TC9164N
	IC1002	OP AMP	M5238PF
	IC1003	E−VR IC	TC9176P
	IC1004	OP−AMP IC	NJM4558DXP
	Q97, 98	TRANSISTOR	2SC2878
	Q99	TRANSISTOR	XDA124ES

CAPACITORS

Mark	No.	Description	Parts No.
	C1003, 1004	CERAMIC CAPACITOR	CKSQYB103K50
	C1005, 1006	ELECT. CAPACITOR	CEAS470M16
	C1007, 1008	ELECT. CAPACITOR	CEAS4R7M50
	C1011−1014	ELECT. CAPACITOR	CEAS2R2M50
	C1015, 1016	CERAMIC CAPACITOR	CKSQYB471K50
	C1017, 1018	CHIP CAPACITOR	CCSQCH470J50
	C1019, 1020	ELECT. CAPACITOR	CEAS4R7M50

RESISTORS

Mark	No.	Description	Parts No.
	R1005, 1006	CARBON FILM RESISTOR	RD1/8PM163J
	R1024−1026	CARBON FILM RESISTOR	RD1/8PM102J
	R97, 98	CARBON FILM RESISTOR	RD1/8PM222J
	R99	CARBON FILM RESISTOR	RD1/8PM102J
		Other resistors	RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
	CN30	CONNECTOR (15P)	KPE15
	CN32	CONNECTOR (15P)	KPE15
	CN33	CONNECTOR (6P)	KPE6
	CN34	CONNECTOR (4P)	KPE4
		PIN JACK 2P	AKB1126

OSD ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1101	E−SW IC	NJM2234L
	IC1102	REGULATOR IC	UPC78L05
	IC1103	PORT−EXPANDER IC	M66320FP
	IC1104	TV IC	UPC1377C
	IC1105	OSD IC	M50554−003SP
	IC1106	E−SW IC	NJM2233BS
	IC1107	E−SW IC	NJM2234L
	Q1101	TRANSISTOR	2SC2458
	Q1102	TRANSISTOR	XDA124ES
	Q1103	TRANSISTOR	XDC124ES
	Q1104	TRANSISTOR	XDA124ES
	Q1105, 1106	TRANSISTOR	2SC2458
	Q1107, 1108	TRANSISTOR	2SC2712
	Q1109	TRANSISTOR	2SA1162
	D1101	DIODE (SMD)	1SS352
	D1102	DIODE	HSS104−02
	D1103	ZENER DIODE	RD5.1ESB
	D1104	DIODE (SMD)	1SS352

COILS

Mark	No.	Description	Parts No.
	L1101	AXIAL INDUCTOR	LAU390K
	L1102	AXIAL INDUCTOR	LAU150K
	L1103, 1104	AXIAL INDUCTOR	LAU270K
	L1105	AXIAL INDUCTOR	LAU680K

CAPACITORS

Mark	No.	Description	Parts No.
	TC1101	CERAMIC TRIMMER	ACM-020
	C1101, 1102	ELECT. CAPACITOR	CEAS100M50
	C1103	ELECT. CAPACITOR	CEAS101M10
	C1104	ELECT. CAPACITOR	CEAS101M16
	C1106	CERAMIC CAPACITOR	CKSQYB103K50
	C1108	ELECT. CAPACITOR	CEAS101M10
	C1109	CHIP CAPACITOR	CCSQCH101J50
	C1110	ELECT. CAPACITOR	CEAS100M50
	C1111	CERAMIC CAPACITOR	CCSQCH560J50
	C1112	ELECT. CAPACITOR	CEAS2R2M50
	C1113	ELECT. CAPACITOR	CEAS101M16
	C1114, 1115	ELECT. CAPACITOR	CEAS010M50
	C1116	CERAMIC CAPACITOR	CCSQCH561J50
	C1117	CERAMIC CAPACITOR	CKSQYB152K50
	C1118	AUDIO FILM CAPACITOR	CFTXA823J50
	C1119	AUDIO FILM CAPACITOR	CFTXA333J50
	C1120	CERAMIC CAPACITOR	CKSQYB472K50
	C1121	ELECT. CAPACITOR	CEAS010M50
	C1122	AUDIO FILM CAPACITOR	CFTXA333J50
	C1123	AUDIO FILM CAPACITOR	CFTXA105J50
	C1124	PL.STYRENE CAPACITOR	CQSA562J50
	C1125	ELECT. CAPACITOR	CEAS2R2M50
	C1126	AUDIO FILM CAPACITOR	CFTXA333J50
	C1127	CERAMIC CAPACITOR	CKSQYF473Z50
	C1128	ELECT. CAPACITOR	CEAS101M16
	C1129	AUDIO FILM CAPACITOR	CFTXA104J50
	C1130	CHIP CERAMIC C.	CCSQCH220J50
	C1131	ELECT. CAPACITOR	CEAS330M16
	C1132	CHIP CAPACITOR	CKSQYF103Z50
	C1133	CHIP CERAMIC C.	CCSQCH150J50
	C1134	CHIP CAPACITOR	CCSQCH330J50
	C1135	CHIP CERAMIC C.	CCSQCH150J50
	C1136	CHIP CERAMIC C.	CCSQCH220J50
	C1137	CHIP CAPACITOR	CKSQYF103Z50
	C1138	CHIP CERAMIC C.	CCSQCH220J50
	C1139	CHIP CAPACITOR	CKSQYF103Z50
	C1140–1143	ELECT. CAPACITOR	CEAS100M50
	C1144	ELECT. CAPACITOR	CEAS101M16
	C1145	CERAMIC CAPACITOR	CKSQYB103K50
	C1146, 1147	ELECT. CAPACITOR	CEAS102M6
	C1148	ELECT. CAPACITOR	CEAS101M16
	C1149–1151	ELECT. CAPACITOR	CEAS100M50
	C1152, 1153	CHIP CAPACITOR	CCSQCH050C50
	C1154	CHIP CAPACITOR	CCSQCH101J50
	C1155	CHIP CAPACITOR	CKSQYB102K50
	C1156	CHIP CAPACITOR	CCSQCH101J50
	C1157, 1158	ELECT. CAPACITOR	CEAS101M16

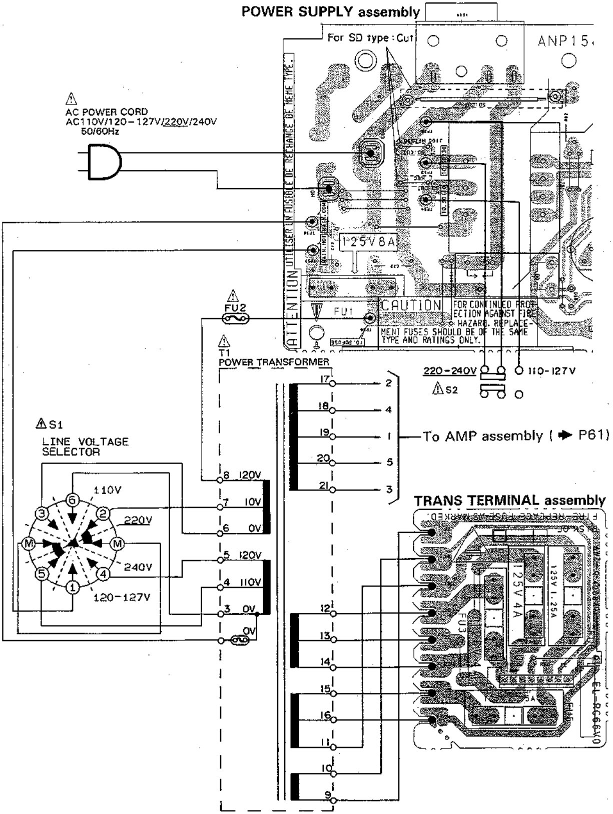
RESISTORS

Mark	No.	Description	Parts No.
	VR1101	VR	VRTS6HS103
	VR1102	VR	VRTS6HS472
	R1101	CARBON FILM RESISTOR	RD1/4PM101J
	R1102	CARBON FILM RESISTOR	RD1/4PM4R7J
	R1118	METALFILM RESISTER	RN1/4PC1202F
	R1127	CARBON FILM RESISTOR	RD1/4PMF100J
	R1140, 1141	CARBON FILM RESISTOR	RD1/2PM221J
	R1146, 1147	CARBON FILM RESISTOR	RD1/8PM102J
	R1150	CARBON FILM RESISTOR	RD1/8PM103J
	R1151	CARBON FILM RESISTOR	RD1/8PM104J
		Other resistors	RS1/10S□□□J

OTHERS

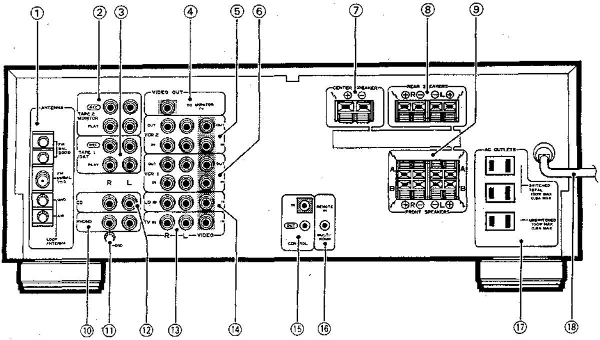
Mark	No.	Description	Parts No.
	CN31	CONNECTOR (9P)	KPE9
	CN35	CONNECTOR (6P)	KPE6
	CN	PIN JACK 2P	AKB1200
	X1101	CRYSTAL RESONATOR (14.31818MHz)	ASS1056

10.3 POWER SUPPLY SECTION (FOR VSX－501/SD)


A
B
C
D
POWER SUPPLY assembly
ANP15
For SD type : Cut
AC POWER CORD
AC110V/120－127V/220V/240V
50/60Hz
ATTENTION UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.
125V8A
FU2
FU1
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
220－240V
110－127V
S2
T1
POWER TRANSFORMER
17
18
19
20
21
2
4
1
5
3
To AMP assembly (➡ P61)
S1
LINE VOLTAGE SELECTOR
110V
220V
240V
120－127V
⑥
③
②
M
M
⑤
④
①
8 120V
7 10V
6 0V
5 120V
4 110V
3 0V
0V
TRANS TERMINAL assembly
12
13
14
15
16
11
10
9
125V 4A
125V 1.25A
FU3
FU4
5A
EL-RC66V0

11. PANEL FACILITIES

11.1 FOR VSX-501 AND VSX-511S


①
②
③
④
⑤
⑥
⑦
⑧
⑨
ANTENNA
FM BAL 300Ω
FM UNBAL 75Ω
GND
AM
LOOP ANTENNA
REC
TAPE 2 MONITOR
PLAY
REC
TAPE 1 /DAT
PLAY
R
L
CD
PHONO
GND
VIDEO OUT
TO MONITOR TV
OUT
VCR 2
IN
OUT
VCR 1
IN
LD IN
TV IN
R
L
VIDEO
IN
OUT
CONTROL
REMOTE IN
MULTI-ROOM
CENTER SPEAKER
⊕
⊖
REAR SPEAKERS
⊕R⊖ ⊖L⊕
A
B
⊕R⊖ ⊖L⊕
FRONT SPEAKERS
AC OUTLETS
SWITCHED TOTAL 100W MAX 0.9A MAX
UNSWITCHED 100W MAX 0.9A MAX
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱

① FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

② TAPE 2 MONITOR jacks

Connect the second cassette deck to these jacks.

Connecting for Recording

The tape recording jack (REC) on the cassette deck should be connected to the REC side of the TAPE 2 MONITOR jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the TAPE PLAY jack on the cassette deck to the PLAY side of the TAPE 2 MONITOR jack on the receiver with a pin plug connecting cord.

③ TAPE 1/DAT jacks

Use these to connect the first cassette deck or DAT (digital audio tape) deck.

Connecting for Recording

The tape recording jack (REC) on the cassette deck or DAT should be connected to the REC side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the PLAY jack on the cassette deck or DAT to the PLAY side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

④ VIDEO OUT (TV MONITOR) jack

Connect to monitor TV or to TV sets with video input terminals for watching program materials from a VCR 1, 2 or LD player connected to this unit.

⑤ VCR 2 jacks

[VIDEO OUT]

When copying program material from the video component connected to the VCR 1 or LD jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program materials from the video component connected to the VCR 1 or LD jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for copying, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for copying, connect its AUDIO OUTPUT jacks here.

⑥ VCR 1 jacks

[VIDEO OUT]

When copying program material from the video component connected to the VCR 2 or LD jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program material from the video component connected to the VCR 2 or LD jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for playing, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for playing, connect its AUDIO OUTPUT jacks here.

⑦ CENTER SPEAKER terminals

Connect the center speaker to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use center speakers of impedance 8 Ω—16 Ω.

⑧ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use rear speakers of impedance 8 Ω—16 Ω.

⑨ FRONT SPEAKERS terminals

A: Connect to the first set of speakers.
B: Connect to the second set of speakers.
Speaker lead wire preparation and connection.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use speakers of impedance 8 Ω—16 Ω.

⑩ PHONO input jacks

Connect to the output cables from a turntable.

⑪ GND terminal

Connect the turntable ground lead to this terminal.

⑫ CD input jacks

Connect to the output jacks of a compact disc player.

⑬ TV jacks (input)

Use these jacks if you wish to connect a TV tuner with both video and audio outputs.

[VIDEO IN]

Connect the TV tuner's VIDEO OUTPUT to this jack.

[AUDIO IN (L, R)]

Connect the TV tuner's AUDIO OUTPUT to these jacks.

⑭ LD jacks

[VIDEO IN]

When watching the video image from a LD player, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When playing back the audio channel from a LD player, connect its AUDIO OUTPUT jacks here.

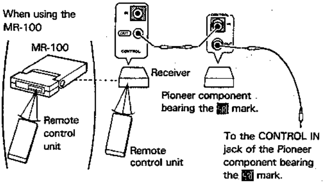
⑮ CONTROL IN/OUT jacks

IN: Connect this jack to other Pioneer components (main unit or remote control unit) when using those components to control this unit.

OUT: Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

NOTE:

The receiver's remote sensor does not function when a plug is inserted in IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.


When using the MR-100
MR-100
Receiver
Pioneer component bearing the ▣ mark.
Remote control unit
Remote control unit
To the CONTROL IN jack of the Pioneer component bearing the ▣ mark.

⑯ MULTI-ROOM REMOTE IN jack

Connect to the separately sold MR-100 Multi-Room remote control unit.

⑰ AC OUTLETS
[U.S. and Canadian models]

[SWITCHED TOTAL 100 W (0.8 A) MAX]

Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W (0.8 A).

[UNSWITCHED 100 W (0.8 A) MAX]

Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W (0.8 A).
The equipment should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.

[Multi-voltage model]

SWITCHED TOTAL 100 W MAX

Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

UNSWITCHED 100 W MAX

Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.

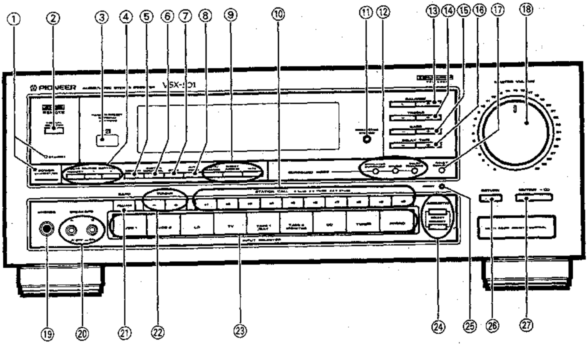
NOTE:

- *This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.*
- *Do not connect appliances with high power consumption such as heaters, irons, or television sets to these AC OUTLETS in order to avoid overheating and fire risk.*
  This can cause the receiver to malfunction.

CAUTION:
DO NOT CONNECT MONITOR OR TV SET.

⑱ Power cord

* Illustration shows model VSX-501.


①
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⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
PIONEER
VSX-501
STATION CALL
⑲
⑳
㉑
㉒
㉓
㉔
㉕
㉖
㉗

① POWER STANDBY/ON switch/STANDBY indicator

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
The STANDBY indicator lights when the power is STANDBY, and goes out during ON.

[Timer ON/OFF possible]
When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② V-SIGNAL (VIDEO SIGNAL) SELECTOR button

Use to change the video signal in sequence leaving the sound unchanged.

→ VCR 1 → VCR 2 → LD → TV → OFF

The current setting is shown by an indicator on the display section.

③ Remote sensor

④ AUTO SOURCE CONTROL buttons

1, 2 buttons:
These buttons are for memorizing and recalling your current settings. Both 1 and 2 can be used to memorize settings. If you connect another component, such as a CD player, to the CONTROL OUT jack on the rear panel, the signals to switch power on and start play are also transmitted.

MEMORY:
Use when memorizing settings to a 1, 2 button.

⑤ MEMORY button

Pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode. This button is also used for custom memory operation.

⑥ CUSTOM MEMO SEL button

Recall a genre name with this button.

→ ROCK → POP → JAZZ → NEWS → OTHER

⑦ SCAN button

Operate when the INPUT SELECTOR is set to TUNER. Station frequencies assigned to the STATION CALL buttons are tuned in, one after another, beginning with the current station no., for approximately 5 seconds each. The display section SCAN indicator will light. Press the button again and the tuner remains tuned in to the station playing when the button was pressed the second time.
Station frequencies not assigned station numbers in the memory are skipped.
When you have selected a CUSTOM MEMORY genre, memory scan is performed on the stations in that genre.

⑧ FM Mode AUTO/MONO button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator in the display section is lit.

Auto stereo mode:
Normally, leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo.

Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This button has no effect on reception of AM broadcasts.

⑨ Tuning buttons

AUTO/MANUAL tuning selector button:

Use to select the tuning mode. To select the AUTO tuning mode, press this button to light the AUTO TUNING indicator in the display section. To select the MANUAL tuning mode, switch off the AUTO TUNING indicator.

AUTO tuning
When the – or + TUNING button is pressed, the receiver automatically scans the broadcast station frequencies. When a broadcast is detected, the scanning stops at that frequency.

NOTE:
Pressing the TUNING button (– or +) while scanning is taking place causes scanning to stop.

MANUAL tuning
This lets you manually tune to particular broadcast frequencies. Each press of the + or – button raises or lowers the frequency by one tuning step. For continuous scanning, keep the button pressed, then release it to stop scanning.

DIRECT ACCESS tuning button:

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.
If the input station falls outside of the receiver's tuning range, the display section will display a message: "UPPER" if the frequency is too high and "LOWER" if it is too low

HITS (Hyper Intelligent Tuning System) button:

Press this button, and search automatically begins up and down the frequency for stations that can be received. When a station that can be received is found, the search operation stops.

⑩ STATION CALL buttons

Up to 30 FM or AM stations can be preset at random.
These buttons are used to preset and recall desired broadcasting stations, FM AUTO/MONO mode.

NOTE:

Pressing STATION CALL button will select TUNER as the source, regardless of what other listening source or function was selected.

⑪ SIMULATED STEREO button

Press to produce a simulated stereo effect when listening to monaural sources (for example, normal AM or TV broadcasts).
"SIMULATED STEREO" appears on the display section.

NOTE:

- *This effect is not produced through the rear speakers.*
- *Use with the SURROUND MODE in the OFF.*

⑫ SURROUND MODE selector buttons

SIMULATED SURROUND:
Select this setting when listening to music or a monaural source, etc.

STUDIO:
Select this setting to enjoy the effect of listening to music in a recording studio.

DOLBY PRO LOGIC SURROUND:
Select this setting when watching video tapes or video discs bearing the DOLBY SURROUND mark.

⑬ BALANCE buttons

Use them to adjust the sound volume balance between left and right speakers.

L: Press to decrease the sound on the right side.
R: Press to decrease the sound on the left side.
Press L and R together to bring the volume balance back to center.

NOTE:

The left-right sound volume balance cannot be adjusted on the rear speakers.

⑭ TREBLE control buttons

Use to adjust the high-frequency level. Press the + button to increase the high-frequency level, and the − button to decrease it.
The TONE indicator appears on the display section.
When both buttons (+, −) of the TREBLE control are pressed simultaneously, the treble response will be set to the flat (normal) condition.

⑮ BASS control buttons

Use to adjust the low-frequency level. Press the + button to increase the low-frequency level, and the − button to decrease it.
The TONE indicator appears on the display section.
When both buttons (+, −) of the BASS control are pressed simultaneously, the bass response will be set to the flat (normal) condition.

⑯ DELAY TIME button

Operates when the SIMULATED or DOLBY PRO LOGIC SURROUND mode is ON.
Switches to surround delay time in 8 steps. For DOLBY PRO LOGIC SURROUND, 20 ms is standard.
Changes in 2 ms steps.

16 ms ↔ 18 ms ↔ ..... ↔ 28 ms ↔ 30 ms

⑰ DOLBY 3CH LOGIC button

Select this setting when stereo-source regeneration and rear speakers are not connected and you wish to use the front L, front R, and center speakers to enjoy audio/visual material bearing the DOLBY SURROUND mark.

⑱ MASTER VOLUME control

Use it to simultaneously adjust the sound volume from the front, center and rear speakers.

⑲ PHONES jack

Connect the plug on your headphones to this jack. Set all SPEAKERS A and B switches to OFF if you want to cut the sound from speakers and listen to it only through the headphones.

⑳ SPEAKERS buttons (A, B) ■OFF ▬ON

ON/OFF switches for the A and B speaker systems.

NOTE:

No sound will be heard thorough the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

㉑ BAND (FM/AM) button

Use this to switch between FM and AM frequency band reception.

㉒ TUNING buttons

+ : Performs tuning from the currently displayed station frequency in ascending frequency order.
− : Performs tuning in order of descending frequencies.

㉓ INPUT SELECTOR buttons

VCR 1: Press when performing playback on a first VCR unit.
VCR 2: Press when performing playback on a second VCR unit.
LD: Press when performing playback on a LD player.
TV: Press when using a TV tuner connected to the TV jacks.
TAPE 1/DAT: Press when performing playback on a DAT or cassette deck.
TAPE 2 MONITOR: Press when performing playback on a second cassette deck or second DAT and when monitoring recording.
CD: Press when playing compact discs on a CD player.
TUNER: Press when listening to radio broadcasts.
PHONO: Press when playing records on turntable.

㉔ ACOUSTIC buttons

MEMORY:

Pressing this button will result in the memorization of the sound quality (tone control condition). Press again to cancel this mode.

SELECT:

- This button is used to preset the five acoustic memories (A–E).
- This button is also used to recall previously set sound quality settings. Each time you press the button, the sound quality setting advances in the order shown below.

→ FLAT → LOUDNESS → A → B → C → D → E ↵

FLAT:	For flat (normal) frequency response.
LOUDNESS:	Emphasizes the low- and high-frequency ranges. Produces a fuller sense of sound, particularly when listening at low volume.
A–E:	Memorized acoustic memory settings.

㉕ RESET button

Use this when normal operation becomes impossible because of external influences such as static electricity or lightning, or when operation is impossible even when operation buttons are pressed. Press this button to return to normal operating conditions.
If you press this button when the power is ON, the unit switches to POWER STANDBY, and the entire contents of the memory are erased.

㉖ RETURN button

Press this button to return the receiver into the initial state. TUNER is selected at this initial state. Adjust the sound level by using the MASTER VOLUME control.

- TAPE 2 MONITOR .... OFF
- SURROUND MODE .... OFF
- MUTING .... OFF
- BALANCE............. CENTER
- FUNCTION .... TUNER
- V-SIGNAL SELECTOR.... OFF
- TONE .... flat

The HITS function searches for broadcast stations among the frequencies displayed.

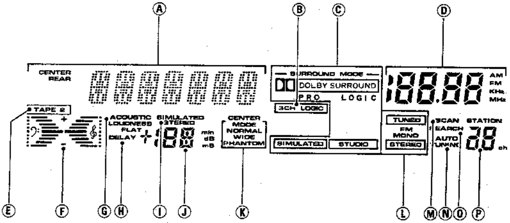
NOTE:

If no sound is output after the RETURN button is pressed, make sure that SPEAKERS buttons are turned on.

㉗ MUTING button

Press to temporarily cut off the sound volume. The display section MUTING indicator will flash. When pressed again, the sound will return to its previous level.

DISPLAY SECTION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DOLBY SURROUND
PRO LOGIC
3CH LOGIC
SIMULATED
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Ⓐ CHARACTER/LEVEL/BALANCE display

- This displays the name of the component selected with the INPUT SELECTOR and V-SIGNAL SELECTOR, etc.
- It also displays the level and balance settings during adjustment.

Ⓑ DOLBY 3CH LOGIC indicator

Ⓒ SURROUND MODE indicators

Ⓓ Frequency/Band display

Ⓔ TAPE 2 indicator

Lights up when the INPUT SELECTOR is set to TAPE 2 MONITOR ON.

Ⓕ TONE level indicator

Shows the settings of the BASS and TREBLE buttons.

Ⓖ ACOUSTIC display

Ⓗ DELAY indicator

Ⓘ SIMULATED STEREO indicator

Ⓙ ACOUSTIC/DELAY TIME/LEVEL/SLEEP TIME display

- Indicates delay time (ms) when using DOLBY PRO LOGIC SURROUND.
- Indicates rear level and center level (dB).
- Indicates sleep timer settings (min).
- Displays Acoustic memory letters A to E.

Ⓚ CENTER MODE indicators

These display the center mode (NORMAL, WIDE, PHANTOM) during DOLBY PRO LOGIC SURROUND and DOLBY 3CH LOGIC operation (Refer to page 6, 7).

Ⓛ Tuning indicators

TUNED:	Lights up when a station is tuned.
FM MONO:	Lights up when the FM MONO mode is selected with the FM MODE AUTO/MONO button.
STEREO:	Lights up when a stereo FM broadcast is being received.

Ⓜ SCAN indicator

Lights up during memory scan operation.

Ⓝ AUTO TUNING indicator

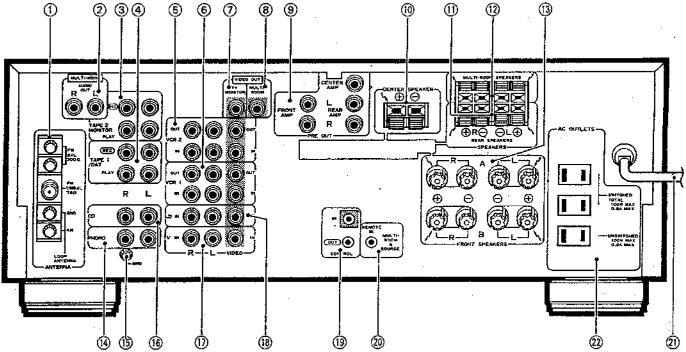
Lights up when in the auto tuning mode.

Ⓞ SEARCH indicator

Ⓟ STATION display

Indicates the channel (ch) selected with the STATION CALL buttons.

11.2 FOR VSX－52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MULTI-ROOM AUDIO OUT
R
L
TAPE 2 MONITOR
REC
PLAY
TAPE 1 /DAT
CD
PHONO
GND
ANTENNA
AM
FM
VCR 2
VCR 1
LD
TV
VIDEO
VIDEO OUT
TV MONITOR
MULTI ROOM
CENTER AMP
FRONT AMP
REAR AMP
PRE OUT
CENTER SPEAKER
MULTI-ROOM SPEAKERS
REAR SPEAKERS
SPEAKERS
A
B
FRONT SPEAKERS
AC OUTLETS
SWITCHED
UNSWITCHED
CONTROL
IN
OUT
REMOTE IN
MULTI-ROOM & SOURCE

①FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

②MULTI-ROOM AUDIO OUT jacks

For a setup in which MULTI-ROOM & SOURCE is used in the Sub room while surround is used in the Main room, connect this terminal to a stereo amplifier and use speakers connected to that amplifier for reproduction in the Sub room.

③TAPE 2 MONITOR jacks

Connect the second cassette deck to these jacks.

Connecting for Recording

The tape recording jack (REC) on the cassette deck should be connected to the REC side of the TAPE 2 MONITOR jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the TAPE PLAY jack on the cassette deck to the PLAY side of the TAPE 2 MONITOR jack on the receiver with a pin plug connecting cord.

④TAPE 1/DAT jacks

Use these to connect the first cassette deck or DAT (digital audio tape) deck.

Connecting for Recording

The tape recording jack (REC) on the cassette deck or DAT should be connected to the REC side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

Connecting for Playback

Connect the PLAY jack on the cassette deck or DAT to the PLAY side of the TAPE 1/DAT jack on the receiver with a pin plug connecting cord.

⑤VCR 2 jacks

[VIDEO OUT]

When copying program material from the video component connected to the VCR 1 or LD jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program materials from the video component connected to the VCR 1 or LD jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for copying, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for copying, connect its AUDIO OUTPUT jacks here.

⑥VCR 1 jacks

[VIDEO OUT]

When copying program material from the video component connected to the VCR 2 or LD jacks, connect to the VIDEO INPUT jacks of the VCR used for recording.

[AUDIO OUT (L, R)]

When copying program material from the video component connected to the VCR 2 or LD jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR used for recording.

[VIDEO IN]

When monitoring the video image from a VCR used for playing, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

When monitoring the audio channel from a VCR used for playing, connect its AUDIO OUTPUT jacks here.

⑦VIDEO OUT (TV MONITOR) jack

Connect to monitor TV or to TV sets with video input terminals for watching program materials from a VCR 1, 2 or LD player connected to this unit.

⑧ VIDEO OUT (MULTI-ROOM) jack

Connect the TV monitor for use in Sub room.

⑨ PRE OUT jacks

[FRONT AMP]

When a separate power amplifier is used to drive the front speakers, connect the power amplifier to these jacks.

[CENTER AMP]

When a separate power amplifier is used to drive the surround center speaker, connect the power amplifier to this jack.

[REAR AMP]

When a separate power amplifier is used to drive the rear speakers, connect the power amplifier to these jacks.

⑩ CENTER SPEAKER terminals

Connect the center speaker to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use center speakers of impedance 8 Ω—16 Ω.

⑪ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use rear speakers of impedance 8 Ω—16 Ω.

⑫ MULTI-ROOM SPEAKERS terminals

Connect Multi-Room & Source Sub-Room speakers.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use speakers of impedance 8 Ω—16 Ω.

⑬ FRONT SPEAKERS terminals

A: Connect to the first set of speakers.
B: Connect to the second set of speakers.

Speaker lead wire preparation and connection.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.
Use speakers of impedance 8 Ω—16 Ω.

⑭ PHONO input jacks

Connect to the output cables from a turntable.

⑮ GND terminal

Connect the turntable ground lead to this terminal.

⑯ CD input jacks

Connect to the output jacks of a compact disc player.

⑰ TV jacks (input)

Use these jacks if you wish to connect a TV tuner with both video and audio outputs.

[VIDEO IN]

Connect the TV tuner's VIDEO OUTPUT to this jack.

[AUDIO IN (L, R)]

Connect the TV tuner's AUDIO OUTPUT to these jacks.

⑱ LD jacks

[VIDEO IN]

When watching the video image from a LD player, connect its VIDEO OUTPUT jacks here.

[AUDIO IN (L, R)]

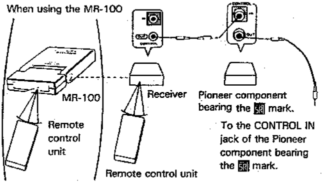
When playing back the audio channel from a LD player, connect its AUDIO OUTPUT jacks here.

⑲ CONTROL IN/OUT jacks

IN: Connect this jack to other Pioneer components (main unit or remote control unit) when using those components to control this unit.
OUT: Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

NOTE:

The receiver's remote sensor does not function when a plug is inserted in IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.


When using the MR-100
MR-100
Remote control unit
Receiver
Remote control unit
Pioneer component bearing the SR mark.
To the CONTROL IN jack of the Pioneer component bearing the SR mark.

⑳ MULTI-ROOM & SOURCE REMOTE IN jack

Connect to the separately sold MR-100 Multi-Room remote control unit.

㉑ Power cord

㉒ AC OUTLETS

[SWITCHED TOTAL 100 W (0.8 A) MAX]

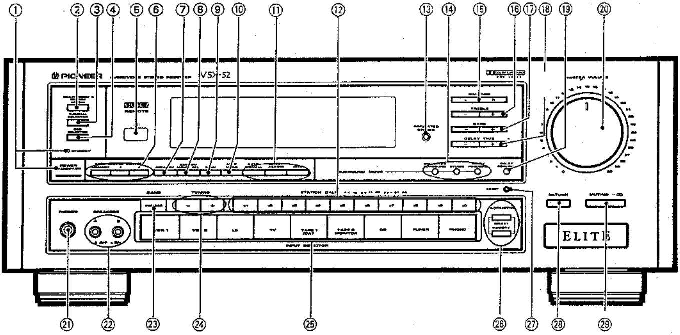
Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W (0.8 A).

[UNSWITCHED 100 W (0.8 A) MAX]

Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W (0.8 A).
The equipment should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.

NOTE:
- *This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.*
- *Do not connect appliances with high power consumption such as heaters, irons, or television sets to these AC OUTLETS in order to avoid overheating and fire risk.*
  This can cause the receiver to malfunction.

CAUTION:
DO NOT CONNECT MONITOR OR TV SET.



① POWER STANDBY/ON switch/STANDBY indicator

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
The STANDBY indicator lights when the power is STANDBY, and goes out during ON.

[Timer ON/OFF possible]
When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② MULTI-ROOM & SOURCE button

- Use in combination with the separately sold MR-100 Multi-Room remote control unit.
  When this button is on, the source selected with the input selector at that time is set as the SUB ROOM function. The selected sub-function's sound is output through MULTI-ROOM SPEAKERS, and the video signal is output through the MULTI-ROOM VIDEO OUT jack. If you install speaker systems connected to the SUB ROOM SPEAKERS terminals in a different room, you can enjoy different sources in two different rooms with a single main unit

③ V-SIGNAL (VIDEO SIGNAL) SELECTOR button

Use to change the video signal in sequence leaving the sound unchanged.

→ VCR 1 → VCR 2 → LD → TV → OFF →

The current setting is shown by an indicator on the display section.

④ OSD (On Screen Display) SELECTOR button

Select MAIN to send the On Screen Display to the TV monitor connected to the VIDEO OUT TV MONITOR jack or select SUB to send it to the TV monitor connected to the MULTI-ROOM VIDEO OUT jack.

⑤ Remote sensor

⑥ AUTO SOURCE CONTROL, MEMORY buttons

1, 2 buttons:

These buttons are for memorizing and recalling your current settings. Both 1 and 2 can be used to memorize settings. If you connect another component, such as a CD player, to the CONTROL OUT jack on the rear panel, the signals to switch power on and start play are also transmitted.

MEMORY:

Use when memorizing settings to a 1, 2 button.

⑦ MEMORY button

Pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode. This button is also used for custom memory operation.

⑧ CUSTOM MEMO SEL button

Recall a genre name with this button.

⑨ SCAN button

Operate when the INPUT SELECTOR is set to TUNER. Station frequencies assigned to the STATION CALL buttons are tuned in, one after another, beginning with the current station no., for approximately 5 seconds each. The display section SCAN indicator will light. Press the button again and the tuner remains tuned in to the station playing when the button was pressed the second time.

Station frequencies not assigned station numbers in the memory are skipped.

When you have selected a CUSTOM MEMORY genre, memory scan is performed on the stations in that genre.

⑩ FM Mode AUTO/MONO button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator in the display section is lit.

Auto stereo mode:

Normally, leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo.

Monaural mode:

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

This button has no effect on reception of AM broadcasts.

⑪ Tuning buttons

AUTO/MANUAL tuning selector button:

Use to select the tuning mode. To select the AUTO tuning mode, press this button to light the AUTO TUNING indicator in the display section. To select the MANUAL tuning mode, switch off the AUTO TUNING indicator.

AUTO tuning

When the – or + TUNING button is pressed, the receiver automatically scans the broadcast station frequencies. When a broadcast is detected, the scanning stops at that frequency.

NOTE:

Pressing the TUNING button (– or +) while scanning is taking place causes scanning to stop.

MANUAL tuning

This lets you manually tune to particular broadcast frequencies. Each press of the + or – button raises or lowers the frequency by one tuning step. For continuous scanning, keep the button pressed, then release it to stop scanning.

DIRECT ACCESS tuning button:

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.

If the input station falls outside of the receiver's tuning range, the display section will display a message: "UPPER" if the frequency is too high and "LOWER" if it is too low.

HITS (Hyper Intelligent Tuning System) button:

Press this button, and search automatically begins up and down the frequency for stations that can be received. When a station that can be received is found, the search operation stops.

⑫ STATION CALL buttons

Up to 30 FM or AM stations can be preset at random.

These buttons are used to preset and recall desired broadcasting stations, FM AUTO/MONO mode.

NOTE:

- *Pressing STATION CALL button will select TUNER as the source, regardless of what other listening source or function was selected.*
- *They are also used when performing direct access tuning.*

⑬ SIMULATED STEREO button

Press to produce a simulated stereo effect when listening to monaural sources (for example, AM or TV broadcasts).

"SIMULATED STEREO" appears on the display section.

NOTE:

- *This effect is not produced through the rear speakers.*
- *Use with the SURROUND MODE in the OFF.*

⑭ SURROUND MODE selector buttons

SIMULATED SURROUND:

Select this setting when listening to music or a monaural source, etc.

STUDIO:

Select this setting to enjoy the effect of listening to music in a recording studio.

DOLBY PRO LOGIC SURROUND:

Select this setting when watching video tapes or video discs bearing the DD DOLBY SURROUND mark.

⑮ BALANCE buttons

Use them to adjust the sound volume balance between left and right speakers.

L : Press to decrease the sound on the right side.

R : Press to decrease the sound on the left side.

Press L and R together to bring the volume balance back to center.

NOTE:

The left-right sound volume balance cannot be adjusted on the rear speakers.

⑯ TREBLE control buttons

Use to adjust the high-frequency level. Press the + button to increase the high-frequency level, and the − button to decrease it.
The TONE indicator appears on the display section.
When both buttons (+, −) of the TREBLE control are pressed simultaneously, the treble response will be set to the flat (normal) condition.

⑰ BASS control buttons

Use to adjust the low-frequency level. Press the + button to increase the low-frequency level, and the − button to decrease it.
The TONE indicator appears on the display section.
When both buttons (+, −) of the BASS control are pressed simultaneously, the bass response will be set to the flat (normal) condition.

⑱ DELAY TIME buttons

Operates when the SIMULATED SURROUND or DOLBY PRO LOGIC SURROUND mode is ON.
Switches to surround delay time in 8 steps. For DOLBY PRO LOGIC SURROUND, 20 ms is standard.
Changes in 2 ms steps.

16 ms ⟷ 18 ms ⟷ ··· ⟷ 28 ms ⟷ 30 ms

⑲ DOLBY 3CH LOGIC button

Select this setting when stereo-source regeneration and rear speakers are not connected and you wish to use the front L, front R, and center speakers to enjoy audio/visual material bearing the DOLBY SURROUND mark.

⑳ MASTER VOLUME control

Use it to simultaneously adjust the sound volume from the front, center and rear speakers.

㉑ PHONES jack

Connect the plug on your headphones to this jack. Set all SPEAKERS A and B switches to OFF if you want to cut the sound from speakers and listen to it only through the headphones.

㉒ SPEAKERS buttons (A, B) ▪OFF ▬ON

ON/OFF switches for the A and B speaker systems.

NOTE:

No sound will be heard thorough the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

㉓ BAND (FM/AM) button

Use this to switch between FM and AM frequency band reception.

㉔ TUNING buttons

+ : Performs tuning from the currently displayed station frequency in ascending frequency order.
− : Performs tuning in order of descending frequencies.

㉕ INPUT SELECTOR buttons

VCR 1:	Press when performing playback on a first VCR unit.
VCR 2:	Press when performing playback on a second VCR unit.
LD:	Press when performing playback on a LD player.
TV:	Press when using a TV tuner connected to the TV jacks.
TAPE 1/DAT:	Press when performing playback on a DAT or cassette deck.
TAPE 2 MONITOR:	Press when performing playback on a second cassette deck or second DAT and when monitoring recording.
CD:	Press when playing compact discs on a CD player.
TUNER:	Press when listening to radio broadcasts.
PHONO:	Press when playing records on turntable.

㉖ ACOUSTIC buttons

MEMORY:
Pressing this button will result in the memorization of the sound quality (tone control condition). Press again to cancel this mode.

SELECT:
- This button is used to preset the five acoustic memories (A−E).
- This button is also used to recall previously set sound quality settings. Each time you press the button, the sound quality setting advances in the order shown below.

→ FLAT → LOUDNESS → A → B → C → D → E ─┐
└──────────────────────────────────────┘

FLAT:	For flat (normal) frequency response.
LOUDNESS:	Emphasizes the low- and high- frequency ranges. Produces a fuller sense of sound, particularly when listening at low volume.
A−E:	Memorized acoustic memory settings.

㉗ RESET button

Use this when normal operation becomes impossible because of external influences such as static electricity or lightning, or when operation is impossible even when operation buttons are pressed. Press this button to return to normal operating conditions.
If you press this button when the power is ON, the unit switches to POWER STANDBY, and the entire contents of the memory are erased.

㉘ RETURN button

Press this button to return the receiver into the initial state. TUNER is selected at this initial state. Adjust the sound level by using the MASTER VOLUME control.

- TAPE 2 MONITOR .... OFF
- SURROUND MODE .... OFF
- MUTING .... OFF
- BALANCE.............. CENTER
- FUNCTION .... TUNER
- V-SIGNAL SELECTOR .... OFF
- TONE .... flat

The HITS function searches for broadcast stations among the frequencies displayed.

NOTE:

If no sound is output after the RETURN button is pressed, make sure that SPEAKERS buttons are turned on.

㉙ MUTING button

Press to temporarily cut off the sound volume. When pressed again, the sound will return to its previous level.

12. SPECIFICATIONS

Amplifier section

Continuous average power output of 100 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.05 % total harmonic distortion (front).**

Continuous power output	
(Rear only driven)	20 W + 20 W (1 kHz, 0.8 %, 8 Ω)
(Front and center driven)	
Front	65 W + 65 W (1 kHz, 0.8 %, 8 Ω)
Center	65 W (1 kHz, 0.8 %, 8 Ω)
Dynamic Power (2 Ω/4 Ω)	230 W/220 W
Input (Sensitivity/Impedance)	
PHONO MM	2.5 mV/47 kΩ
CD, TAPE 1/DAT, TAPE 2, LD, VCR 1, VCR 2	150 mV/47 kΩ
Phono Overload Level (T.H.D. 0.1 %, 1 kHz)	
PHONO MM	130 mV
Frequency Response	
PHONO MM	20 Hz to 20,000 Hz ±0.3 dB
CD, TAPE 1/DAT, TAPE 2, LD, VCR 1, VCR 2	5 Hz to 100,000 Hz ${}^{+0}_{-3}$ dB
Output (Level/Impedance)	
TAPE 1/DAT REC, TAPE 2 REC	150 mV/2.2 kΩ
VCR 1 OUT, VCR 2 OUT	150 mV/2.2 kΩ
Tone Control	
BASS	±8 dB (100 Hz)
TREBLE	±8 dB (10 kHz)
Loudness Contour	6 dB (100 Hz) 4 dB (10 kHz)
Signal-to-Noise Ratio (IHF, short circuited, A network)	
PHONO MM	75 dB
CD, TAPE 1/DAT, TAPE 2, LD, VCR 1, VCR 2	97 dB
Signal-to-Noise Ratio (EIA, at 1 W (1 kHz))	
PHONO MM	77 dB
CD, TAPE 1/DAT, TAPE 2, LD, VCR 1, VCR 2	80 dB

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.*

** *Measured by Audio Spectrum Analyzer.*

VIDEO Section

Input (Sensitivity/Impedance)	
VCR 1, VCR 2, LD	1 Vp-p/75 Ω
Output (Level/Impedance)	
VCR 1, VCR 2, MONITOR	1 Vp-p/75 Ω
Frequency Response	
VCR 1, VCR 2, LD → MONITOR	5 Hz — 10 MHz ${}^{+0}_{-3}$ dB
Signal to Noise Ratio	55 dB
Cross Talk	55 dB

FM Tuner Section

Frequency Range	87.5 MHz to 108 MHz
Usable Sensitivity	Mono; 10.8 dBf, IHF (0.95 µV/75 Ω)
50 dB Quieting Sensitivity	Mono; 15.3 dBf, (1.6 µV/75 Ω) Stereo; 37.0 dBf, (19.5 µV/75 Ω)
Signal-to-Noise Ratio	Mono; 80 dB (at 65 dBf) Stereo; 76 dB (at 85 dBf)
Distortion	Mono; 0.2 % (1 kHz) Stereo; 0.3 % (1 kHz)
Capture Ratio	1 dB
Alternate Channel Selectivity	65 dB (400 kHz)
Stereo Separation	45 dB (1 kHz)
Frequency Response	30 Hz to 15 kHz $({}^{+0.5}_{-2.0})$ dB
Image Interference Ratio	50 dB
IF Interference Ratio	80 dB
Antenna Input	300 Ω balanced 75 Ω unbalanced

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzene, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.

AM Tuner Section

Frequency range	
With 9 kHz step	531 kHz — 1,602 kHz
With 10 kHz step	530 kHz — 1,700 kHz
Sensitivity (IHF, Loop antenna)	300 µV/m
Selectivity	25 dB
Signal-to-Noise Ratio	50 dB
Antenna	Loop antenna

Miscellaneous

Power requirements	
U.S. and Canadian models	AC 120 V, 60 Hz
Multi-voltage model	AC 110 V/120 — 127 V/220 V/240 V (Switchable), 50/60 Hz
Power consumption	
U.S. and Canadian models	240 W, 320 VA
Multi-voltage model	610 W
In standby condition	3 W
AC Outlets	
U.S. and Canadian models	
SWITCHED x 2	TOTAL 100 W (0.8 A) MAX
UNSWITCHED x 1	100 W (0.8 A) MAX
Multi-voltage model	
SWITCHED x 2	TOTAL 100 W MAX
UNSWITCHED x 1	100 W MAX
Dimensions	420 (W) x 162 (H) x 406 (D) mm 16-9/16 (W) x 6-3/8 (H) x 16 (D) in
Weight (without package)	9.7 kg (21 lb 6 oz)

Furnished Parts

FM T-type antenna	1
AM Loop antenna	1
Dry cell batteries	
VSX-511S: size "AA" (IEC LR6/AM-3) Alkaline	2
VSX-501: size "AAA" (IEC R03/UM-4)	2
Remote control unit	1
Operating Instructions	1

NOTE:
Specifications and the design subject to possible modifications without notice due to improvements.

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AM Tuner Section

Frequency range	530 kHz — 1,700 kHz
Sensitivity (IHF, Loop antenna)	300 µV/m
Selectivity	25 dB
Signal-to-Noise Ratio	50 dB
Antenna	Loop antenna

Miscellaneous

Power requirements	AC 120 V, 60 Hz
Power consumption	240 W
In standby condition	3 W
AC Outlets	
SWITCHED x 2	TOTAL 100 W (0.8 A) MAX
UNSWITCHED x 1	100 W (0.8 A) MAX
Dimensions	440 (W) x 162 (H) x 417 (D) mm 17-5/16 (W) x 6-3/8 (H) x 16-7/16 (D) in
Weight (without package)	10.0 kg (22 lb 1 oz)

Furnished Parts

FM T-type antenna	1
AM Loop antenna	1
Size "AA" Alkaline batteries (LR6/AM-3)	2
Remote control unit	1
Operating Instructions	1

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